

*The Commonwealth of Massachusetts*

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1937

THE NINETY-SEVENTH ANNUAL REPORT OF THE HOSPITAL  
FOUNDED IN 1839 BY THE CITY OF BOSTON



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DEPARTMENT OF MENTAL DISEASES  
GARDNER STATE HOSPITAL  
EAST GARDNER, MASS.

# BOSTON STATE HOSPITAL

(Post Office Address: Dorchester Center, Mass.)

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PURCELL G. SCHUBE, M.D., *Assistant Superintendent*.  
FLORENCE A. BEAULIEU, M.D., *Senior Physician*.  
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———, *Senior Physician*.  
———, *Senior Physician*.  
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VOLTA R. HALL, JR., M.D., *Assistant Physician*.  
OWEN C. MULLANEY, M.D., *Assistant Physician*.  
JOSEPH P. THORNTON, M.D., *Assistant Physician*.  
———, *Assistant Physician*.  
———, *Dentist*.  
MARY ALICE McMAHON, R.N., *Principal of School of Nursing*.  
FRANCIS E. BURNS, *Acting Steward*.  
ROSE J. SICILIANO, *Treasurer*.

## TRUSTEES' REPORT

*To His Excellency the Governor and the Honorable Council:*

The Board of Trustees of the Boston State Hospital respectfully submit their Annual Report for the year 1937.

The Board, as at present constituted, was appointed by His Excellency and confirmed by the Council on February 10, 1937. Following their appointment, the members of the Board of Trustees were informed by His Excellency of certain adverse conditions at the Boston State Hospital that had been brought to his attention, and which required immediate and thorough consideration. The Board entered forthwith into a careful and painstaking examination of every phase of the hospital service.

Our findings in the main confirmed the reported existence of certain irregularities, lack of proper attention to the care and comfort of the patients, uncleanness of the buildings and a considerably disorganized service. The present Superintendent, Dr. Harold F. Norton, appointed shortly before our present Board took office, had fallen heir to these unfavorable conditions and was already effectively planning to restore things to normal.

To facilitate the necessary reorganization of the hospital service, the Trustees thought it advisable to hold many hearings throughout the year in addition to their frequent personal visitation of the entire institution. The hearings revealed among other things that a small minority of the hospital personnel resented the administrative changes which it had been found necessary to make. To these, the alternative was given of willing and sympathetic cooperation or dismissal. To all helpful suggestions from the personnel, a willing ear was given and recent appreciable improvements in the general atmosphere of the hospital may well be attributed to these suggestions.

The Trustees are very happy to report that complaints on account of service or food are now at a minimum. The immediate administration of the hospital, we feel, is in competent hands, while every effort is being made to maintain the highest medical standards, with one end in view, the care and comfort of the patients. The moral tone of the institution is vastly improved.

However, the Trustees feel obliged to call to the attention of His Excellency, the need of new buildings to replace certain old buildings of third class construction. The continuance of these buildings, lacking in modern equipment as they are, and thoroughly outmoded for present day hospital purposes, is a matter of daily concern to the Superintendent and the Trustees.

The Board of Trustees is of the opinion that there has been lack of definite periodic supervision on many matters on the part of the State authorities. There should, for instance, be periodic inspection of stockrooms and periodic inspection of the buildings and their equipment. Such periodic inspections would be helpful to the State authorities and to the hospital administration and should carry with them definite recommendations for improvement.

Fully aware of your helpfulness during the recent reorganization period of the hospital, the Board of Trustees wish to take this means of thanking you for the confidence implied in their appointment to carry on this important work.

In detail, follow, hereon, the report of the Superintendent, Dr. Harold F. Norton, whom the Trustees are happy to commend for his very competent administration of the hospital during a most trying period of its history.

Respectfully submitted,

J. A. GREENE, M.D.

THOMAS J. SCANLAN, M.D.

THOMAS D. RUSSO

HARRY B. BERMAN

ALEXANDER M. SULLIVAN

GERTRUDE A. MACDONNELL

JOSEPHINE E. THURLOW, F.A.C.H.A., *Chairman*, 1937.

## REPORT OF THE SUPERINTENDENT

*To the Board of Trustees of the Boston State Hospital:*

The following is a report of the activities of the hospital for the statistical year ending September 30, 1937, and the fiscal year ending November 30, 1937. Founded by the City of Boston in 1839, this marks the completion of its ninety-eighth year as a hospital for mental diseases, and the twenty-ninth year of its history as a state institution.



## MOVEMENT OF POPULATION

The number of patients on our books September 30, 1936, was 2,701. There were admitted during the year 882, making a total of 3,583 under care and treatment during the year. There were discharged to the community, 492 and transferred to other mental hospitals, 94. Three hundred and twenty-five deaths occurred leaving 2,672 patients on the books of this hospital on September 30, 1937, of which 2,368 were actually in the hospital and 304 patients on visit or otherwise absent.

## PERSONNEL

During the year Dr. James V. May, Superintendent, appointed in December 1917, retired in December 1936.

Dr. Gerald F. Houser, Assistant Superintendent, appointed November 1927, resigned February 1937,

Dr. Frederick LeDrew, Senior Physician, appointed August 1929, resigned February 1937.

Dr. Mary G. Noble, Senior Physician, appointed March 1905, retired February 1937.

Dr. Margaret McManamy, Senior Physician, appointed September 1931, resigned February 1937.

Dr. Geneva Tryon, Senior Physician, appointed July 1920, retired July 1937.

Dr. Stephen Wolanske, Assistant Physician, appointed November 1936, resigned December 1936.

Dr. Beatrice R. Kershaw, Assistant Physician, appointed July 1936, resigned March 1937.

Dr. Harold F. Norton, Senior Physician, appointed October 1934, was promoted to Superintendent January 6, 1937.

Dr. Purcell G. Schube, Senior Physician, appointed June 1933, was promoted to Assistant Superintendent February 10, 1937.

Dr. I. Paley Rubin was appointed as Senior Physician, May, 1937.

Dr. Theodore F. Lindberg was appointed Senior Physician, September 1937.

Dr. Dorothy E. Donley was appointed Senior Physician, November, 1937.

Dr. Norris B. Flanagan was appointed Assistant Physician, March 1937.

Dr. Volta R. Hall, Jr., was appointed Assistant Physician, April, 1937.

Dr. N. Anthony Bicchieri was appointed Assistant Physician, April, 1937.

Dr. Owen C. Mullaney was appointed Assistant Physician, June, 1937.

Dr. Joseph P. Thornton was appointed Assistant Physician, June, 1937.

During the past year there have been a number of relatively important changes in the administrative personnel which should be recorded: Samuel H. Franks, Steward, appointed December 10, 1933, resigned February 10, 1937. Linda F. Graves, Principal Clerk, appointed October 21, 1909, resigned February 10, 1937. Florence E. Armstrong, Head Social Worker, appointed May 10, 1926 resigned February 8, 1937. Mrs. Lillian S. Irvine was appointed Head Social Worker on September 16, 1937. Margaret M. Lee, Senior Clerk and Stenographer, employed October 19, 1925, was promoted to Principal Clerk, April 28, 1937.

## PSYCHIATRIC SERVICE

Staff meetings are held four times a week from 11:00 a.m. to 12:30 p.m. Pathological conferences are held on the second and fourth Thursday of every month.

Every Thursday there is a noon day Staff luncheon to which a prominent physician not associated with the hospital is invited to speak. The names of speakers and their subjects to date, are as follows:

Dr. Abraham Myerson, Mecholy and Benzedrine

Dr. Leo Alexander, Micro-Incineration and Spectrographic Studies of the Brain.

Dr. Julius Loman, Intracranial Hydrodynamics

Dr. Michel Pijoan, Vitamin C.

Dr. A. Warren Stearns, Crime.

Dr. Tracey Putnam, Sedative Drugs in the Treatment of Epilepsy.

Dr. Houston Merritt, Alcoholic Psychoses.

Dr. Merrill Moore, Brain Tumors.

Dr. Wm. Damashek, Hematology.

Dr. Harry C. Solomon, Neurosyphilis.  
 Dr. William Lennox, Encephalography.  
 Dr. Franz Sachs, Psychoanalysis.  
 Dr. Frederick Gibbs, Electro-Encephalograph.  
 Dr. R. G. Hoskins, Endocrinology.  
 Dr. S. Tannhauser, Lipids.

#### MEDICAL SERVICE

The efficiency of our Medical and Surgical service has been greatly increased owing to the purchase and installation of new and up-to-date equipment.

Instead of having a number of patient buildings admit psychotic individuals, all the admissions to the institution are now received at the Psychiatric Clinic, where they are retained until they are completely examined and if it is then found that these individuals are not immediately recoverable, they are transferred to buildings more adequately suited for their care and treatment. The physicians in the Clinic are entirely responsible for these patients although the mental examinations of new admissions are rotated through the medical staff.

There is now on duty for a period of seven days at a time a night physician who is responsible for all of the medical and minor administrative duties in the institution at night. He makes rounds in every patient building in the hospital at least once every night. The medical staff rotate among themselves as night physicians.

#### DENTAL REPORT

Dr. George S. Rileigh, resident dentist, performed the following work during the year:

Extractions . . . . .	1,586
Examinations. . . . .	2,201
Prophylaxis . . . . .	1,097
Fillings . . . . .	1,206
Restorations . . . . .	1,299
Treatment . . . . .	1,688
Patients treated . . . . .	2,783

#### GENERAL OPERATIONS

Practically all of the patients' buildings at this institution have been scrubbed, cleaned and re-painted. A cafeteria has been established in the West A Building. A new sink and dishwasher have been installed and the kitchen and dining rooms have been equipped with new tables and chairs. Many of the wards have been equipped with new beds.

West B building — The operating room in this building has been renovated and re-equipped. The offices and waiting rooms in the building have been refurnished. New linoleum has been laid on many of the floors. The dining rooms have been equipped with new furniture. Many of the wards have been furnished with newly painted beds.

West C and D buildings and E1 and E2 cottages — New heating has been installed wherever possible and many of the unsanitary conditions in these buildings have been eliminated.

West F building — The congregate dining room in this building has been abolished and small dining rooms on the first floor have been completely re-equipped. The operating room has been renovated and new equipment installed. New linoleum has been laid on many of the floors. The beds on the wards have been newly painted.

West G building — New linoleum has been laid on many of the floors. In one section of the building, new terrazzo floors have been laid. Newly painted beds have been placed on all the wards. The dining rooms have been refurnished with new tables and chairs and the kitchen re-equipped with sinks, cabinets and refrigerators.

East A building — New lavatories and fixtures have been installed on both floors. Lavatories have been painted.

East B building — New plumbing has been installed and new linoleum laid on the floors of the wards and in the sun porches.

East D building — Lavatories have been repaired. Many old broken cabinets have been removed from this building.

East E building — New light fixtures and new lavatories have been installed.

East F building — New electric light fixtures suspended from the ceilings. New linoleum laid on the floor. The dining room and kitchen on the first floor have been abolished and established on the second floor.

East G building — The kitchens and dining rooms have been abolished. Newly painted beds have been placed on the wards.

#### PATIENTS

All the patients from the West C — D — E1 and E2, a large number from West F, West G and West A buildings, who formerly were eating on the wards, are now eating in the West patients' cafeteria. In the East Group, all of the patients from the A — C — D — E, first floor of the F building and G buildings are now eating in the East patients' cafeteria. Many of these patients formerly ate their meals in the ward dining rooms. This concentration on the feeding facilities has made it possible to serve all of the patients hot, nutritious food and a type of food which it was practically impossible to give them previously. The patients who cannot be fed in the cafeteria are fed in small dining rooms in their respective wards. These dining rooms have been painted, equipped with new tables and chairs, new dishes and silver and are entirely appropriate for the services which they render. It is interesting that when our first attempts were made to get patients to go to the dining room, it was found that many of these patients were rather feeble, but when this procedure was persisted in, these individuals rapidly gained strength and at the present time they all enjoy going to the cafeteria and have gained markedly in their physical condition.

Due to the fact that all of the beds on the wards were in bad condition and needed painting, a bed stripping and painting project was established in the hospital and many hundreds of beds have been stripped of their old paint and repainted an attractive shade of green. These beds are then placed back on the wards and many have been equipped with new mattresses and pillows.

Although the quantity of sheets, pillow cases, bedgowns, dresses and other articles of this nature are not by any means adequate as yet, there is an infinitely larger amount of them present now than formerly. This increase naturally has thrown a greater load on our laundry but the installation of much new equipment therein has helped to take care of this additional laundry load quite well.

The nursing care of the patients has improved immeasurably and all nursing is under direct supervision of the Superintendent of Nurses. There are now upon many male wards as well as upon all female wards, female nurses and attendants. All patients' buildings are in charge of female registered nurse supervisors and all wards are under the supervision of female registered nurses.

#### RECREATIONAL THERAPY

Recreational activities of the patients have been enormously increased. In addition to their regular occupational therapy work, there has been instituted a physical therapy program, a program of afternoon teas, dances and card games. Moving pictures are shown twice a day on Wednesday of each week. There have been a large number of band concerts and orchestras during the year. During the summer months there were five field days with 2,000 patients out on the grounds on each occasion for the afternoon and early evening, having had their supper on the grounds. There have been approximately 2,000 patients going to entertainments each month. These programs the patients have enjoyed enormously and it is felt that they have contributed immeasurably to the improvement in their mental condition. Other therapeutic programs have been established for the patients, such as painting, daily walks, carpenter work, sewing, mending, laundry and kitchen work.



The following is a typical month's recreational program:

September	September
1 — Moving pictures	13 — Group singing
2 — Baseball	15 — Moving pictures
4 — Baseball	17 — Band concert
5 — Baseball	18 — Baseball
6 — Band concert, Baseball	19 — Band concert
8 — Moving pictures	20 — Group singing
9 — Baseball	22 — Moving pictures
10 — Band concert, Dance	26 — Band concert
11 — Baseball	27 — Group singing
12 — Band concert	29 — Moving pictures

More patients are attending church services now than before. Each Sunday there is a 6:00 a.m. mass for employees, 8:30 a.m. mass for patients, and 9:30 a.m. services for Protestant patients. A new Hammond electric organ has been purchased for the chapel for church services and other recitals. This is a very beautiful instrument and an enormous improvement over our old antequated organ which had been used in this hospital for years.

The program of keeping the patients well fed, interested and occupied has naturally decreased the amount of physical illness in the patients at this hospital.

#### OCCUPATIONAL THERAPY DEPARTMENT

There are eleven members on the census of the Occupational Therapy department. One male attendant has been transferred from the nursing service and one from the Industrial department has been assigned to the department.

The aim of the activities carried on has been to serve the greatest number of patients to the highest advantage of all.

In the spring the patients were accompanied on their daily outdoor exercise in ward groups. As the need arose, 1,845 garments brought in by relatives were marked for the use of the individual patients. When the hospital mending became a problem 1,769 articles, dresses, underwear, bed spreads, sheets, etc., were mended. As renovating became imperative 1,409 pieces of furniture, benches, chairs, tables, etc., were scraped, painted and finished under proper supervision. In addition the demand for key cords, face cloths, bed jackets, bed slippers for use on the wards has been met as far as possible.

At the St. Patrick's day party in March members of the department helped to handle the large number of visitors and relatives; were responsible for the Field Day sports in June and in July; helped in the Labor Day sports program; and took male patients to the first Braves Field ball game. Indoor and outdoor recreation have been daily events, croquet, ball playing, badminton, pingpong, etc.

The average number of patients occupied during the day is 257, with a total monthly contact of 448 different patients.

#### HYDROTHERAPY DEPARTMENT

The number of patients treated — 60. The number of treatments given — (hydro) — 6,710: — Salt glow, 571; Sitz baths, 513; Saline baths, 191; Electric light baths, 84; Hot and cold to spine, 18; Foot baths as pre-treatment, 1; Vapo baths, 1; Shampoos, 481; Hair shampoos, 129; Needle sprays, 1,907; Fan douches 1,514; Jet douches, 1,300.

The number of patients in wet sheet packs — 193. The number of packs 18,109 and the number of hours 42,661.57;

The number of patients in continuous baths — 172. The number of baths 7,275 and the number of hours 42,932.47.

The following treatments were administered in the East Group; the number of patients — 44; the number of treatments — 4,262; — Needle sprays, 3,210; Tub shampoos, 526; Hair shampoos, 526.

#### ENGINEERING DEPARTMENT

East C-D-E and F buildings — The plumbing, including, water supply piping, water closet bowls, wash bowls, sinks, fixtures in these buildings have all been replaced with the newer class type of modern plumbing. Tile flooring has replaced the old wooden floors. Soap stands and towel racks have been installed for the

comfort of patients. The water supply pipes have been replaced with new brass pipes and the size pipe installed makes it possible for a sufficient amount of water to be drawn at all times. New thermostatic hot water mixing valves on each individual bath tub and on all shower baths in these buildings insures the safety of the patients at all times. The temperatures cannot exceed beyond the safety point. In the past only one master mixing thermostatic valve controlled the entire hot water supply for each building. These buildings have been furnished with new hot water copper storage tanks in order to have a proper supply of hot water to meet the demands of service. By the installation of the new water supply pipe lines and new risers the water pressure coming into these buildings has been increased to full water pressure. More sanitary drainage is also accomplished by these improvements.

The steam heating system of East Group buildings has had over 160 feet of new six inch underground pipe in basements installed, to replace old return piping that was in a very poor condition. One hundred and fifty feet of  $1\frac{1}{2}$ " return piping has replaced the same amount of return piping that was entirely clogged up with dirt and sediment and this condition prevented properly heating these buildings. More of this return piping must be removed in order that all of the buildings be heated properly.

Laundry building — A new motor driven mangle was installed. A new steam dryer machine was installed with new extractor machines, new electric panel switch board so that each machine can be operated separately thereby eliminating unnecessary shut downs.

West F building — The galvanized water supply pipes including main water supply and all risers leading off main supply have been replaced with larger size brass pipes. New thermostatic mixing valves have been installed on all bath tubs, etc. to prevent any danger of scalding to patients. The 1st and 2nd floors have been made over for the sick patients and employees. Plumbing fixtures have been added including wash bowls, etc. Old fixtures have been replaced with modern plumbing. New tiling has been installed on the 3rd floor in the kitchen. New electric cooking ranges have been installed on the 1st and 2nd floors. New monel sinks have been installed. In the basement a new barber shop was opened. New plumbing fixtures, 2 new pedestal wash sinks and new drainage piping for the sinks have been installed.

West G building — New thermostatic mixing valves have been installed in hydro tub rooms on all individual baths.

West C building — Approximately 700 sq. ft. of radiation has been installed to insure sufficient heat to warm building this coming winter so that the patients will be comfortable at all times. This direct steam radiation will also protect the new automatic sprinklers and keep them from freezing, so that in case of emergency they will be ready for use. The water supply coming into building was insufficient as only a 1" diameter lead pipe was the source of supply. New brass pipe line  $1\frac{1}{2}$ " in diameter was installed to the city main water supply and all individual pipes renewed with new brass piping.

West D building — Direct steam radiation has been installed.

West Kitchen — The steam kettles have all been rearranged for sanitary purposes. A new concrete basin laid under the kettles will keep the floor clean at all times. New steam and water piping installed and each kettle has been equipped with a steam safety valve to protect kettle from serious damage from steam pressure. Old soap stone sinks have been replaced with monel sinks. Urinals have been replaced by modern plumbing. A cafeteria has been installed with automatic refrigeration for drinking water and ice cream making. New 2" brass pipe line replaces old galvanized pipe line which was insufficient to operate hydraulic freight elevator.

#### EMPLOYEES

The working conditions of employees in this hospital have been improved. They have been given facilities for much recreation in the institution. They are permitted to have dances in the auditorium and they have organized a social club which functions very well.

The discipline of the employees is handled by means of a hospital discipline committee which consists of: 2 trustees, 2 physicians, 2 supervisors, 2 attendants and 1 special attendant. This committee investigates any infractions of rules by any



employee and presents the results of their investigation to the Superintendent with their recommendations and he decides upon the disposition of the case. The committee members are elected by the various hospital groups which they represent.

Physicians who are not living in their own homes on the grounds are now all living in the Administration building. The farmhouse has been converted into a two family house for two physicians and their families. The east staff house and east male employees' home have been converted into quarters for female nurses.

The east and west staff dining rooms have been abolished and all doctors not living in their own homes are eating in the dining room in the Administration building. The west congregate dining room and kitchen has been completely repainted and the employees dining room and the tables and chairs have been stained and a new cafeteria has been completed and functions perfectly.

With the creation of the employees' sick quarters, they have been able to receive excellent medical and nursing care and all sicknesses and injuries employees have had, have been adequately cared for in this new unit.

#### SOCIAL SERVICE DEPARTMENT

There have been several changes in the personality of the Social Service Department within the past year. Miss Florence E. Armstrong, Head Social Worker since May 10, 1926, resigned on February 8, 1937. Miss Esther Coleman acted as Head Social Worker for several months until the vacancy was filled by the appointment of Mrs. Lillian S. Irvine as Head Social Worker on September 16, 1937. Mrs. Irvine received her Bachelor's Degree at Mt. Holyoke and has studied at Boston University School of Social Work. She received training in social work at the Boston Psychopathic Hospital. She was employed as psychiatric social worker at the New Hampshire State Hospital for four years and was Head Social Worker there the last two years. She had experience in social case work with the Child Welfare House in Lynn and in flood diaster work with the Red Cross in Ohio. Miss Evelyn Raynes resigned March 1937, after 8 years of service. Mrs. Alice M. Brearton and Mrs. Phyllis Foster were appointed to fill vacancies in the department and others have been associated with the department for short periods.

Since June 1, 1937, the Social Service Department has been responsible for taking the medical histories of all patients admitted to the hospital, and there have been 315 admissions since then. Many histories were formerly taken by the medical staff.

Full social investigations have been made in all cases admitted for observation under Sections 77, 100 and 104 of Chapter 123 of the General Laws. These consist of medical history, information from social agencies, school and work records, reports from outside physicians, alcoholic history and court record. This investigation assists the staff in understanding the personality of the patient. During the year we have made full social investigations on 69 cases under Section 77 and 41 cases under Section 100. There were no cases under Section 104.

The work of the department consists not only of taking histories and making investigations, but also of supervising patients on visit and in family care, locating relatives, giving advice and assistance to patients and their families and doing social case work in selected cases.

The occupational therapy center at City Mills was discontinued in March 1937. This center was under the supervision of the head social worker and was used for patients out in family care. Of 36 patients boarded out at City Mills for any length of time during the 3 years from March 1, 1934, to March 4, 1937, 7 are on visit, 10 are patients in the hospital, 2 have died, and 17 have been discharged. On September 30, 1937, there were 7 patients under family care in the community. The following is a numerical summary of social service cases for the year:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
New cases . . . . .	473	441	914
Renewed cases from previous years . . . . .	31	44	75
Renewed cases within the year . . . . .	37	38	75
Continued cases from previous year . . . . .	14	52	66
Cases closed during the year . . . . .	540	552	1,092
Cases continued to following year . . . . .	15	23	38

## PATHOLOGICAL LABORATORY

The pathological work was carried on by Dr. Naomi Raskin, with the help of two technicians and two volunteer workers. Pathological conferences were held, except for the summer months, when the cases which came to autopsy were discussed and the pathological material was demonstrated to the members of the staff. The work on the effect of the benzedrine sulphate on the hemopoietic system was carried on in collaboration with Dr. Schube and the paper published in the New England Journal. The work on cholesterolysis in the serum of normal men was completed and accepted for publication. The working facilities of the laboratory have been increased by the purchase of the microscope and the photoelectric colorimetre.

## PHYSIOTHERAPY AND X-RAY DEPARTMENT

The work of the physiotherapy and X-ray department has been carried on during the year by Mrs. Gertrude Moses. During the year 818 treatments were given to 47 patients. The treatments were as follows: ultra violet ray 260; infra red ray 201; diathermy 114; massage 216; sinusoidal 27. There were 946 x-ray examinations and 426 fluoroscopic examinations. The total number of patients x-rayed was 502 and 370 employees.

## SCHOOL OF NURSING

Miss Mary Alice McMahon, R.N., Principal of the school of nursing has had charge of the nursing service of the hospital. Following is a census of the nursing service for the year ending September 30, 1937:

	Male	Female	Total
Principal, Training School for Nurses . . . . .	0	1	1
Assistant Principal, Training School for Nurses . . . . .	0	1	1
Supervisors (Chief) . . . . .	0	2	2
Assistant Supervisors (Days) . . . . .	8	12	20
Assistant Supervisors (Nights) . . . . .	3	3	6
Head Nurses, Registered . . . . .	0	13	13
Attendant Nurses . . . . .	149	232	381
Graduate Registered Nurses of Boston State Hospital now in service . . . . .	0	5	5

*Accepted during the Year*

	Male	Female	Total
Registered Nurses . . . . .	1	20	21
Attendant Nurses . . . . .	223	143	366

*Left during the Year*

Graduates . . . . .	1	17	18
Graduate Psychiatric Nurses . . . . .	0	19	19
Student Psychiatric Nurses . . . . .	0	25	25
Attendant Nurses . . . . .	245	90	335

*Psychiatric Nurses*

Graduate Head Psychiatric Nurses . . . . .	0	17	17
Graduate Psychiatric Nurses . . . . .	0	4	4
Seniors . . . . .	1	7	8
Juniors . . . . .	0	23	23

Total registered class of 1936 — 18 passed

Department of Mental Diseases Examinations.

Discontinued October 1, 1937.

Total number of classes . . . . .	43	369	412
Number of persons taught . . . . .	223	143	366

### AGRICULTURAL ACTIVITIES

Mr. Ralph B. Littlefield resigned as Head Farmer February 1937. Because it had been planned to abolish the farm at this hospital as of November 30, 1937, the position was not filled. A small quantity of farm products were raised. The value was \$2,101.20. The farm was abolished November 30, 1937.

### RESEARCH LABORATORY

During the past year the Research division of the Boston State Hospital carried out researches which can be mainly arranged under the following headings:

- I. Human autonomic pharmacology
- II. General neuropathological studies
- III. Vitamin deficiency and other studies
- IV. Clinical and therapeutic studies.

I. *Human autonomic pharmacology.* — The laboratory continued its experimental work with four drugs so balanced as to mimic, in large measure, the interplay of substances which the body itself produces. These drugs were benzedrine, sulfate, mecholyl chloride, prostigmin and atropine. Studies were carried out on the structures of the body in order to discover their autonomic relationships. A summary of the results obtained, which was presented at the annual meeting of the American Medical Association last June, is the following.

A. General principles: — We have accepted the theory that the autonomic nervous system manufactures chemical substances which regulate visceral activity. The autonomic activity is the resultant of three sets of chemical substances: (1) sympathin which is the active agent in bringing about what are here called adrenergic effects and which is mainly formed at the junction between the second sympathetic neuron and the reacting cell. (2) Acting in a balance to this chemical is acetylcholine which is mainly produced by the parasympathetic neurons and operates at the junction between the neurons and the junction of the second parasympathetic neuron and the reacting cell. (3) Cholinesterase is an enzyme, the function of which is to hydrolyze or destroy the acetylcholine. It is present in the tissues and in the blood, and acts so as to render the activity of the parasympathetic enzyme, acetylcholine, intermittent. Thus, there is a balance, on the one hand, between the adrenergic substances of the sympathetic nervous system and the cholinergic substances of the parasympathetic nervous system and, on the other hand, a more local balance between the acetylcholine and the esterases.

B. Drugs: — The drugs used have been selected because of their potency and the predictability of their results. The adrenergic substance used is benzedrine sulfate (benzyl-methyl carbamine or Beta-phenyl-isopropylamine) and the cholinergic substance, mecholyl (acetyl-beta-methylcholine chloride). These drugs are relatively balanced in their activities, although not entirely. Prostigmin (dimethyl-carbamic ester of m-oxyphenyl-trimethylammonium methylsulfate) is used to destroy or inhibit the esterases, so that the drug is a powerful synergist of mecholyl. The function of atropine sulfate (sulfate of tropeic ester of tropine) in these experiments is to lessen or block the activity of mecholyl or of acetylcholine, and consequently to act as a synergist to benzedrine. There is lacking in this series of experiments something which will paralyze the sympathetic, but no drug has as yet been developed which safely performs this function.

C. General plan: — The general principle of the work done has been to study organ by organ the body of human beings who, though suffering from mental disease, are organically healthy insofar as our present day knowledge goes.

1. The eye: — By instillation of these drugs into the eye, the results which have been obtained show the following:

(a) The palpebral fissure is narrowed by cholinergic (mecholyl, prostigmin) stimulation, widened by adrenergic (benzedrine) stimulation. These results undoubtedly are due to a local effect upon Muller's muscle.

(b) The pupil is a balanced function, cholinergic substances (mecholyl, protstigmin) narrowing the pupil, adrenergic substances (benzedrine, etc.) widening it. By paralyzing the parasympathetic through atropine, the pupil is widened. Atropine acts as a synergist to benzedrine in this capacity. Prostigmin is a synergist to mecholyl.



(c) The light reaction is a balanced function between darkness and light stimulation, and chemically between cholinergic (mecholyl) and adrenergic (benzedrine) stimulation.

(d) The intraocular pressure is a balanced function, cholinergic substances lowering the tension, adrenergic substances increasing it.

(e) The lens, although anatomically innervated by the parasympathetic, may be increased in its capacity to accommodate by cholinergic substances (especially by prostigmin), and lessened in its capacity to accommodate by adrenergic substances and atropine.

(f) Argyll Robertson pupil: The principal defect in the Argyll Robertson pupil is an incapacity, or loss of the full power, of sympathetic activity although the parasympathetic is to some extent involved. By adding adrenergic substances (benzedrine sulfate  $\frac{1}{2}$  to 1 per cent) the pupil dilates and becomes moderately reactive to darkness and to daylight.

(g) In the first stage of prostigmin instillation, the presbyopic eye becomes myopic. In a short time it becomes emmetropic. In one case the capacity of the lens to react to the near point became that of a man of 35, the actual age of the individual being 55.

2. Sweat, flushing, etc.: Sweat, flushing and rhinorrhea appear to be cholinergic functions, despite the fact that the structures involved are sympathetic in innervation. Under mecholyl, sweating, flushing and rhinorrhea become very marked. Prostigmin acts as a marked synergist to these reactions of mecholyl.

(a) Local sweat: The sweating produced by mecholyl is alkaline. Furthermore, by introducing mecholyl into the skin an interesting local sweating is caused, which is alkaline. This sweating is stopped by the previous use of atropine, is increased by the previous use of prostigmin and is not affected by benzedrine.

3. Gall bladder: Atropine sulfate markedly affects the emptying time of the gall bladder after a fatty meal. Benzedrine sulfate does not affect this emptying time for a period of two hours after the ingestion of the drug. At the end of that time there is a marked holdup of the emptying reaction.

4. Heart and blood pressure: Mecholyl in small doses stimulates the pacemaker which is more of an adrenergic than a cholinergic function, and at the same time decreases the conductivity so that the P — R interval is lengthened. Heart block is with difficulty obtained by mecholyl alone unless excessive doses are given. Prostigmin slows the pacemaker somewhat and lessens the conductivity of the bundle of His so that the P — R interval is lengthened. The addition of prostigmin to mecholyl produces extraordinary and marked effects on the heart, so that the pulse becomes very slow and heart block, even asystole, may be brought about. Atropine immediately checks the effects of mecholyl or prevents them from coming about if given in advance. By itself it stimulates the pacemaker. Benzedrine sulfate appears to have no definite effect upon the conducting mechanism of the heart, although the pulse rate becomes somewhat slower.

5. Blood pressure: The blood pressure is apparently a balanced function insofar as autonomic pharmacology is concerned. Benzedrine sulfate given in large doses either by mouth or subcutaneously raises the blood pressure very markedly. It tends to raise the blood pressure against the depressing effects of amytal narcosis. Mecholyl lowers the blood pressure markedly, but for a short time. Prostigmin, having little effect itself, is a marked synergist to mecholyl. Atropine paralyzes or prevents the effects of mecholyl and acts as a synergist to benzedrine. The combination of prostigmin and mecholyl, as well as the combination of benzedrine and atropine, produces results which must be carefully watched.

6. Gastrointestinal tract: Mecholyl has a marked effect on the atonic intestinal tract. In a typical case, it ordinarily took 12 days for the bismuth meal to make the transit. Mecholyl speeded up the process so that within five minutes the intestinal tract was tonic, and this increased tonicity lasted 24 hours. Physostigmin has a similar effect, as shown on the dog's stomach. Benzedrine relaxes spasm of the gastrointestinal tract, whether of functional or organic origin. Aside from the therapeutic value, it is of great help to the X-ray man in clearly defining lesions and

in differentiating between functional and organic spasm.

7. Urinary bladder: Mecholyl by itself has little effect on the urinary bladder. The combination of mecholyl and prostigmin produces a marked contraction of the dilated bladder, in a typical case to about one-third of its original capacity. Atropine stops this effect and restores the bladder to more than normal size. Benzedrine sulfate relaxes the bladder, in which it is aided by atropine.

8. The synergism of prostigmin and mecholyl: This is illustrated by the effect on blood pressure, heart activity, and the secretion of the juices of the stomach, as well as the sweating reaction, the urinary bladder, and in practically every function which is involved by the use of mecholyl; including the eye.

9. Esterases: The evaluation quantitatively of the esterases has proceeded to the point where it is now a routine procedure in our laboratory, as well as in other places. The technique which depends upon the hydrolysis of acetylcholine by blood serum has been standardized and is not difficult.

10. Iontophoresis: Iontophoresis is the introduction of chemical substances by the use of the galvanic current into the skin. On the positive pole, there is placed the substance to be introduced; on the negative pole, the salt solution. We have shown that blood pressure can be continuously and quite markedly reduced by the iontophoresis of mecholyl. The gastric juice can be maintained at an alkaline condition for a long period of time and without the general untoward effects noted when mecholyl is injected intramuscularly. Prostigmin enhances the iontophoresis of mecholyl. Atropine blocks it. Benzedrine sulfate may be introduced by iontophoresis to produce the usual benzedrine results. The method has the advantage of a slow and continuous introduction of chemical substances into the body.

11. Summary: It may be stated that many functions of the human organism may be manipulated at will, in a predictable and quite marked manner, by the use of the autonomic drugs mecholyl, benzedrine, prostigmin and atropine.

In addition, we have devised a new method for the quantitative study of the esterases which is based on the principle that as acetylcholine is destroyed by esterases, it liberates acetic acid, which in its turn liberates the  $\text{CO}_2$  of the blood. The measurement of the  $\text{CO}_2$  gives a definite index of the esterase activity of a specimen of blood examined. We are carrying out experiments in this direction to determine whether or not various levels of esterase activity are present in the various diseases.

Two therapeutic approaches are indicated by our work: (1) The extraordinary effect of benzedrine sulfate on sleep has opened up channels of investigation in the interaction of benzedrine sulfate and sleep-producing drugs. Work is in progress both in epilepsy and in dementia praecox in this direction. (2) The fact that in syphilis there seems to be a lack of adrenergic substance suggests therapeutics in this direction by adding adrenergic substances to the treatment.

## II. General neuropathological studies:

### a. Mineral studies:

1. The microincineration method: This method has definitely shown that minerals play an important role both in the normal and pathological cells of the body and especially of the nervous system. (1) All young cells, whether embryonic, representing new growth or occurring in the course of inflammation, have more minerals than old cells. This is particularly important in the case of the new growths and the inflammations, since there are psychiatric cases associated with new growth and inflammation. (2) In the neuron the minerals are distributed in the nucleus, but the nucleolus is free of minerals; in the cytoplasm in general following the distribution of the chromophilic granules. They are thus present in the dendrite but not in the axone. When the cell is injured, so that the Nissl granules disappear, minerals also disappear. The two processes, however, do not run parallel, as is shown in tuberculous sclerosis, a type of feeble-mindedness in which the Nissl granules disappear but the minerals are increased in amount. The various parts of the nervous system differ from one another in the degree and distribution of the minerals.

2. The spectroscopic method: This method, carried out in collaboration with the Massachusetts Institute of Technology, shows the following findings: (1) The normal cerebral gray matter of the human adult is richer in iron, calcium, magnesium and sodium, while normal white matter is richer in phosphorus. (2) The



brain of the human newborn is richer in most elements but poorer in iron than that of the adult. The lowered iron content seems to correspond to the lesser vascular density of the new born brain. (3) In foci of ischemic necrosis, softening, and multiple sclerosis, the alteration in the spectroscopic picture is surprisingly insignificant as compared to the intensive demineralization of the tissue, as demonstrated by microincinerated preparations in these conditions. However, while the tissue itself appears demineralized in microincinerated preparations, ample mineral is demonstrated in hypermineralized scavenger and glia cells, which stand out against the otherwise demineralized background of these lesions. Our spectroscopic studies justify our conclusion that these scavenger and glia cells contain most of the minerals in about the same proportions which normally are evenly distributed within the tissue, with the exception of potassium which is diminished in freshly softened areas and of iron which is increased in all these lesions. The iron in these lesions is probably hematogenous in nature and points to vascular dilatation, stasis, or thrombosis in the areas involved. (4) In dementia paralytica the total iron is diminished rather than increased; this is probably due to the fact that the loss of capillary density is greater than the perivascular and intragial iron deposits. (5) In lead encephalitis, more lead is deposited in the gray than in the white matter of the brain. (6) In oedematous brain tissue, sodium and calcium are increased. This increase is relatively greater in the white than in the gray matter. (7) The ash of meningioma was found to be ten times as rich in calcium as the normal gray matter, while the other elements were diminished. The ash of a spongioblastoma of mixed type, with a great deal of protoplasmic and fibrillary astrocytic differentiation, showed more potassium, but less phosphorus and magnesium than normal gray matter.

b. Local anaphylactic lesions of the brain in guinea pigs:

Local anaphylactic lesions in the brain differ only in degree from those produced by a single injection of antigen. They show hemorrhage, necrosis, thrombosis of precapillary vessels, capillary anemia and gross demineralization. Two new methods have been utilized: the microincineration method and the Lepehne-Pickworth method (benzidine stain) for selective staining of the vascular bed. These experiments show that the sensitization of an animal predisposes him to vascular and other lesions.

c. The vascular pattern of various lesions of the human central nervous system:

A study of neuropathologic lesions with the new benzidine stain (Lepehne-Pickworth method) has been made. The lesions examined include: arterial and arteriolar disease and occlusion, venous occlusion, trauma (recent and old), inflammatory disease, poisoning and tumor.

In certain lesions of chronic alcoholism (Wernicke's disease) the venous congestion with varicosities, secondary to capillary paralysis, is well demonstrated.

The method is invaluable for the study of the minute arterial and venous structures of the brain.

d. Other neuropathological studies:

Neuropathological studies by several methods, including microincineration and spectroscopic examination, have been made. The Lepehne-Pickworth method and also the routine neurologic stains are being carried out on the lesions of alcohol, beri-beri, other vitamin deficiencies, the various forms of idiocy and the major psychoses. These will be elaborated in next year's report. What may be stated at present very definitely is that important and new findings have already come to our attention.

*III. Vitamin deficiency and other studies:*

An elaborate series of studies has been made on vitamin deficiencies. Each of the vitamins has been separated out from the feeding of pigeons and the results noted both clinically and post-mortem. The results bear very heavily both on the genesis and the therapeutics of the diseases due to vitamin deficiency. Interesting findings have already been discovered in the bone marrow and the brain substance. These results will be reported in next year's report.

This brief statement covers an immense amount of work with very valuable results but, as yet, not sufficiently linked up with a specific etiologic factor involved to be safely discussed at the present time.



#### IV. *Clinical and therapeutic studies:*

On the clinical side, certain main trends are being followed. In the first place, the relationship of the neuroses to the psychoses is being intensively studied. The neuroses were discussed from the standpoint of the evolution of symptom-complexes in a paper entitled, "Neuroses and Neuropsychoses — The Relationship of Symptom Groups" (by A. Myerson in *Am. J. Psychiat.* 93, 2:263-301, Sept., 1936). The point made in this paper is that there is a natural history to the evolution of the neuroses of fairly definite type, and that frequently by the mere increase of the so-called neurotic symptoms, the so-called psychoses appear. In other words, it seems to the director that the dividing line between the neuroses and the psychoses is artificial and is still based on legal concepts, to wit, whether or not a patient is committable. By evolution and addition the hypochondriacal idea becomes the somatic delusion. The feeling of unreality becomes translated into that falsification of unreality, called delusion. The feeling of self-blame, of a more or less natural type, becomes translated by increase into the delusion of self-accusation. The feeling that one is being scrutinized in an unfriendly way becomes the delusion of reference. The tendency in all depressions to react only to the distressing and sad accounts in the newspapers finally becomes the complete melancholia, whereby the world becomes divested of all interesting and hopeful events and trends. A further paper is in press, citing cases illustrating the general principles outlined in the first paper. . . . It appears quite likely that even the term psychosis is a stumbling block to clear thinking in psychiatry, and that in the interests of advance in the field the term should be dropped and no artificial barrier created between the psychotic and the non-psychotic groups of the mental diseases.

A further study is in progress, with a paper already in press, on the role of passivity and the objective signs of this in the development of dementia praecox and kindred states. Certain interesting eye signs have been discovered, which indicate that both in the organic disease of Parkinson's syndrome and in certain of the mental states, the eyelids react in extraordinary measure to stimulation. Coupled with this, an objective measurement of the conduct in the realm of passivity and activity is being made with the collaboration of the psychologist of this institution.

#### PAPERS PUBLISHED

1. Physiologic effects of acetyl-beta-methylcholine (mecholyl) and its relationship to other drugs affecting the autonomic nervous system. *Am. J. Med. Sci.* 193, 2:198 (Feb.) 1937. (A. Myerson, J. Loman, W. Dameshek).
2. The effect of benzedrine sulfate on the hematopoietic system. *New England J. Med.* 216, 21:922-923 (May 27) 1937. (P. G. Schube, N. Raskin, E. Campbell).
3. The effect of benzedrine sulphate on certain abnormal mental states. *Am. J. Psychiat.* 94, 1:27-32 (July) 1937. (P. G. Schube, M. C. McManamy, C. E. Trapp, A. Myerson).
4. Human Autonomic Pharmacology. IV. The effect of benzedrine sulfate on the gall-bladder. *New England J. Med.* 216, 16:694-697 (Apr. 22) 1937. (P. G. Schube, M. Ritvo, A. Myerson, R. Lambert).
5. Human Autonomic Pharmacology. V. The effect of acetyl-beta-methylcholine (mecholyl) on the atonic colon. *Radiology*, 28:552-558 (May) 1937. (A. Myerson, P. G. Schube, M. Ritvo).
6. Human Autonomic Pharmacology. VI. General and local sweating produced by acetyl-beta-methylcholine chloride (mecholyl). *Am. J. Med. Sci.* 194, 1:75-79 (July) 1937. (A. Myerson, J. Loman, M. Rinkel).
7. Human Autonomic Pharmacology. VIII. The effect of iontophoresis on the gastric juices with especial reference to acetyl-beta-methylcholine chloride (mecholyl). *Am. J. Digest. Dis. & Nutr.* 4, 6:386-390 (Aug.) 1937. (J. Loman, M. Rinkel, A. Myerson).
8. Human Autonomic Pharmacology. IX. The effect of cholinergic and adrenergic drugs on the eye. *Arch. Ophth.* 18:78-90 (July) 1937. (A. Myerson, W. Thau).
9. Human Autonomic Pharmacology. X. The synergism of prostigmin and mecholyl. *J. Pharmacol. & Exper. Therap.* 60, 3:296-311 (July) 1937. (A. Myerson, M. Rinkel, J. Loman, P. Myerson).

10. Human Autonomic Pharmacology. XIV. The use of acetyl-beta-methylcholine chloride (mecholy) as a diagnostic test for poisoning by the atropine series of drugs. J.A.M.A. 109, 8:561-564 (Aug. 21) 1937. (W. Dameshek, O. Feinsilver).

11. The neurone as studied by microincineration. Anat. Rec. 67, 1937. (L. Alexander).

12. Local anaphylactic lesions of the brain in guinea pigs. Am. J. Path. 13, 2:229-248 (Mar.) 1937. (L. Alexander, A.C.P. Campbell).

13. The mineral content of various cerebral lesions as demonstrated by the micro-incineration method. Am. J. Path. 13, 3:405-439 (May) 1937. (L. Alexander, A. Myerson).

*The following papers in press:* (or published after close of fiscal year).

1. Human Autonomic Pharmacology. VII. The effect on the normal cardiovascular system of acetyl-beta-methylcholine chloride, atropine, prostigmin, benzedrine, with especial reference to the electrocardiogram. (W. Dameshek, J. Loman, A. Myerson). Am. J. Med. Sci. 195:88-103 (Jan.) 1938.

2. Human Autonomic Pharmacology. XI. The effect of benzedrine sulphate on the Argyll Robertson pupil. (A. Myerson, W. Thau).

3. Human Autonomic Pharmacology. XII. Theories and results of autonomic drug administration (A. Myerson) J.A.M.A. 110, 2:101-103 (Jan. 8) 1938.

4. Human Autonomic Pharmacology. XIII. The effect of mecholy and prostigmin on the size and tonus of the urinary bladder. (B. Greenberg, J. Loman, A. Myerson).

5. Human Autonomic Pharmacology. XV. The effect of acetyl-beta-methylcholine chloride (mecholy) by iontophoresis on arterial hypertension. (J. Loman, M. F. Lesses, A. Myerson).

6. Human Autonomic Pharmacology. XVI. Benzedrine sulfate as an aid in the treatment of obesity. (M. F. Lesses, A. Myerson) N.E.J. Med. 218, 3:119-124 (Jan.) 1938.

7. Human Autonomic Pharmacology. XVII. The effect of acetyl-beta-methylcholine chloride on the gall bladder. (P. G. Schube, A. Myerson, M. Ritvo, R. Lambert).

8. Neuroses and neuropsychoses — illustrative case histories (A. Myerson).

9. Minerals in normal and pathologic brain tissue, studied by microincineration and spectroscopy. (L. Alexander, A. Myerson). Arch. Neurol. & Psychiat. 39, 1:131-149 (Jan.) 1938.

10. Ascorbic acid content of blood plasma in alcoholic psychoses. (L. Alexander, M. Pijoan, P. G. Schube, M. Moore).

11. The vascular pattern in various lesions of the human central nervous system. Studies with the benzidine stain. (A.C.P. Campbell, L. Alexander, T. J. Putnam).

12. The cell minerals in tuberous sclerosis and in amaurotic idiocy, studied by microincineration and spectroscopy. Examples of a neoplastic and of a degenerative ganglion cell disease. (L. Alexander, A. Myerson).

13. Ascorbic acid in cerebrospinal fluid. (M. Pijoan, L. Alexander, A. Wilson).

The following papers were read during the past year:

1. Clinical pharmacology of the autonomic nervous system. (Read by A. Myerson before the New Haven Medical Society, New Haven, Conn. Dec. 2, 1936).

2. Autonomic pharmacology of the human being. (Read by A. Myerson, W. Dameshek, J. Loman, M. Rinkel, M. Ritvo and P. G. Schube before the Massachusetts Psychiatric Society, Boston, Mass., Dec. 8, 1936).

3. Local anaphylactic lesions in the brain in guinea-pigs. (Read by L. Alexander and A. C. P. Campbell before the Massachusetts Psychiatric Society. Boston, Mass., Dec. 8, 1936).

4. The interrelationship of mecholy, prostigmin, benzedrine and atropine on human visceral activity. (Read by A. Myerson before the Boston Biological Society, Boston, Mass., Dec. 16, 1936).

5. Gall-bladder studies. (Read by M. Ritvo before the New England Roentgen Ray Society, Boston, Mass., Dec. 18, 1936).

6. Experiments in human autonomic pharmacology. (Read by A. Myerson before the American Association for the advancement of Science, Atlantic City, N. J., Dec. 28, 1936).



7. The neuroses. (Read by A. Myerson before the Jacobi Medical Club. Providence, R. I., Jan. 27, 1937).

8. Autonomic pharmacology of the human being. (Read by A. Myerson and research associates before the Greater Boston Medical Society, Boston, Mass., Feb. 2, 1937).

9. Mental hygiene. (Read by A. Myerson before the American Physical Education Association, Boston, Mass., Feb. 15, 1937).

10. The autonomic pharmacology of the human eye. (Read by A. Myerson before the New England Ophthalmological Association, Boston, Mass., Feb. 16, 1937).

11. The vascular pattern of various lesions of the central nervous system. (Read by A. C. P. Campbell, L. Alexander and T. J. Putnam before the Boston Society of Psychiatry and Neurology, Boston, Mass., Mar. 18, 1937).

12. The autonomic nervous system and the eye. (Read by A. Myerson before the New England Council of Optometry, Boston, Mass., Mar. 30, 1937).

13. The neurone as studied by microincineration. (Read by Alexander, L., before the American Association of Anatomists, Toronto, Canada, Mar. 27, 1937).

14. The pharmacology of the autonomic nervous system, with especial reference to benzedrine and mecholyl. (Read by J. Loman before the Belmont Medical Society, Belmont, Mass., Apr. 2, 1937).

15. Pathology of various diseases of the central nervous system; cerebral arteriosclerosis, syphilis of the central nervous system, chorea, encephalitis, and combined system disease. (Read by L. Alexander before the Merrimac County Medical Society, Concord, N. H., Apr. 7, 1937).

16. Neuropathological aspects of alcoholism. (Read by L. Alexander before the Advisory Committee for the Study of Alcoholism and the Social Service Committee of the Boston City Hospital, Boston, Mass., April 12, 1937).

17. The neuropathology of vitamin deficiency states. (Read by L. Alexander before the Metropolitan State Hospital Staff, Waltham, Mass., April 21, 1937).

18. Eugenics and sterilization. (Read by A. Myerson before a conference of the New York Academy of Medicine and the American Eugenics Society, New York City, Apr. 21, 1937).

19. Neuroses as seen in everyday life. (Read by A. Myerson before the George Bates Society, Tufts Dental School, Boston, Mass., Apr. 29, 1937).

20. The autonomic pharmacology of the eye with especial reference to the Argyll Robertson pupil. (Read by A. Myerson and W. Thau before the Boston Society of Psychiatry and Neurology. Boston, Mass., May 20, 1937).

21. Mineral studies of the brain by the microincineration and spectroscopic methods. (Read by L. Alexander and A. Myerson before the American Neurological Association, Atlantic City, N. J., June 3-5, 1937).

22. Main results of experiments in human autonomic pharmacology. (Read by title by A. Myerson and J. Loman before the American Neurological Association, Atlantic City, N. J., June 3-5, 1937).

23. Human Autonomic pharmacology of the human being. (Read by A. Myerson and associates before the American Medical Association, Atlantic City, N. J., June 10, 1937).

24. (Papers read before Boston State Hospital Staff, Mattapan, Mass.)

Human Autonomic pharmacology — July 8, 1937, by A. Myerson.

Neuropathology — July 15, 1937 by L. Alexander.

Vitamines — July 22, 1937 by M. Pijoan.

Dynamics of cranio-vertebral cavity — Aug. 5, 1937, by J. Loman.

Physiology, etiology and treatment of various kinds of enemia — Aug. 26, 1937, by W. Dameshek.

#### PUBLICATIONS BY MEMBERS OF STAFF

1. The colon in mental disease — 1. Dementia Praecox., Amer. Jour. Dig. Dis. and Nutrition, 3:528-533, 1937, — by P. G. Schube.

2. Cerebral Hemorrhages following lumbar spinal puncture. Jour. Nerv. and Ment. Dis., 84:636-659, (Dec.) 1936, by P. G. Schube and N. Raskin.

3. Variations in the blood cholesterol of man over a time period. Jour. Lab. and Clin. Med., 22:280-284 (Dec.) 1936, by P. G. Schube.



4. Blood cholesterol and the manic depressive psychosis. Jour. Lab. and Clin. Med., 22:240-245 (Dec.) 1936.
5. Human Autonomic Pharmacology, IV. The effect of benzedrine sulphate on the gall bladder. New Eng. Jour. Med., 216:694-697, 1937, by P. G. Schube, M. Ritvo, A. Myerson and R. Lambert.
6. The effect of benzedrine sulphate on the hematopoietic system. New Eng. Jour. Med., 216-922-923, 1937, by P. G. Schube, N. Raskin, E. Campbell.
7. Involutional melancholia; Treatment with Theelin. Arch. Neur. and Psychiat., 38:505-512, 1937, by P. G. Schube, M. McManamy, C. E. Trapp, G. F. Houser.
8. The effect of benzedrine sulphate on certain abnormal mental states. Amr. Jour. Psychiat., 94:27-32, 1937, by P. G. Schube, M. C. McManamy, C. E. Trapp, A. Myerson.
9. Human autonomic pharmacology. V. The effect of acetyl-beta-methylcholine (mecholy) on the atonic colon. Radiology, 28:522-558, 1937, by P. G. Schube, M. Ritvo and A. Myerson.
10. The reaction of certain psychotic types to alcohol. Preliminary report. Jour. Nerv. and Mental Diseases, 85:668-688, 1937, by P. G. Schube and C. E. Trapp.

#### FINANCIAL STATEMENT

The appropriation for maintenance for the past year was \$1,272,080.00, plus an amount of \$27,641.13 brought forward from 1936, making a total appropriation \$1,299,721.13. The expenditures amounted to \$1,219,336.87 giving a weekly cost per patient of \$9.9521.

The estimate for maintenance for the coming year, based on a patient population of 2,330, is as follows:

Personal services . . . . .	\$734,180.00
Travel, transportation, and office expenses . . . . .	9,880.00
Food . . . . .	325,558.00
Clothing and materials . . . . .	47,200.00
Religious instruction . . . . .	2,080.00
Furnishings and household supplies . . . . .	68,200.00
Medical and general care. . . . .	27,950.00
Heat and other plant operations . . . . .	121,650.00
Farm . . . . .	5,900.00
Garage and grounds . . . . .	17,300.00
Repairs, ordinary . . . . .	50,950.00
Repairs and renewals . . . . .	43,850.00

\$1,454,698.00

#### RECOMMENDATIONS

The West C, D and Center Office Building, which have been condemned, should be razed, and a new building constructed to take their place. This building, of course, should be of such size as to well accommodate for the patients in these two buildings due to the overcrowding in this institution.

The East A, E and F buildings likewise should be razed and suitable buildings constructed in their place to more adequately house and protect the patients.

Practically all of the older buildings in the institution have inadequate plumbing systems which should be removed and proper toilet and bathing facilities installed.

Due to the fact that all of our electric wires are above ground and are constantly in danger of being broken by winds which naturally would throw our entire hospital into darkness at night, it is necessary to have all the electric wiring in the institution placed underground.

An industrial shop is badly needed by this hospital. Our present industrial work is carried on in the basements of the patients' buildings, which handicaps the work and likewise is a potential fire menace.

A new paint shop is badly needed in this institution. Our present paint shop is located under the laundry and is a very definite fire menace.

The institution is in need of a salvage yard. There is much old lumber and other equipment which it is necessary to stack and store in odd places on the grounds.

If it would be possible to build a salvage yard and have this material all in one place, it would be an enormous economic asset to the institution.

A centrally located auditorium is urgently needed, especially in view of the increase in the number of entertainments for patients.

A tunnel system under Morton Street and connecting individual buildings would greatly increase the efficiency of the hospital.

Although in the past year, a large amount of fill was dumped into the swamp lands on the hospital property, there is still a large amount of swamp land remaining. This swamp breeds enormous numbers of mosquitoes and is exceedingly unhealthy for the patients. The purchase of enough fill to completely eliminate this waste land is highly advisable.

The sewage and surface drainage systems of the buildings and grounds are entirely inadequate for the purposes for which they were designed and in great part are entirely antiquated. In order that proper sanitary precautions and the health of the institution may be maintained, many new sewers should be installed.

Although our laundry is in relatively good condition and new machinery has been purchased, in order to supply the hospital with a minimum amount of clean linen, it is necessary to keep the machinery running an enormous number of hours each week. This naturally causes the equipment to depreciate rapidly, and it would appear that in order to supply the hospital with a reasonable amount of clean linen, that the purchase of additional laundry equipment would be necessary. This equipment would be in the form of pressers, washers, centrifuge driers and dry tumblers. To handle this equipment would, of course, necessitate an addition to the personnel.

In addition to these things, there is one other factor in the care of the patients which is of the utmost importance. There never has been an adequate personnel for reasonable maintenance of the care and treatment of patients. It would appear that, since the recovery and return of patients to the community is the primary function of the hospital, and inasmuch as it is a very definite economic and social asset to the State to accomplish this, the employment of an adequate number of people is imperative.

#### CONCLUSION

I wish to express my gratitude and sincere appreciation to those employees who have been faithful to duty, loyal to the organization and efficient in the performance of the duties devolving upon them during the past year. Also, to all who have contributed in any way to the welfare of the patients I am very grateful. The entire hospital is indebted to the Board of Trustees for their cooperation and helpfulness at all times.

Respectfully submitted,

HAROLD F. NORTON, M.D.,

*Superintendent.*

#### VALUATION

November 30, 1937

##### REAL ESTATE

Land, 224.66 acres . . . . .	\$974,100.00
Buildings and Betterments . . . . .	3,884,018.87
	<b>\$4,858,118.87</b>

##### PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	—
Food . . . . .	18,947.14
Clothing and materials . . . . .	38,880.91
Furnishings and household supplies . . . . .	312,094.44
Medical and general care . . . . .	19,449.42
Heat and other plant operation . . . . .	7,938.82
Farm . . . . .	11,370.95
Garage and grounds . . . . .	2,763.62
Repairs . . . . .	17,898.45
	<b>\$429,343.75</b>

##### SUMMARY

Real estate . . . . .	\$4,858,118.87
Personal property . . . . .	429,343.75
	<b>\$5,287,462.62</b>

## FINANCIAL STATEMENT

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1937.

STATEMENT OF EARNINGS	
Board of Patients . . . . .	\$77,714.46
Personal Services:	
Reimbursement from Board of Retirement . . . . .	309.11
Sales:	
Travel, transportation and office expenses . . . . .	\$173.35
Food . . . . .	627.29
Furnishings and household supplies . . . . .	96.95
Medical and general care . . . . .	32.00
Garage and grounds . . . . .	14.50
Repairs ordinary . . . . .	1.57
Farm (1 horse, \$1; 2 bridles, \$2; 3 saddles, \$3.) . . . .	6.00
Total Sales . . . . .	\$951.66
Miscellaneous:	
Rents . . . . .	\$8.58
Interest on Patients' Fund . . . . .	77.89
Maintenance — Dr. James V. May . . . . .	200.42
Total Miscellaneous . . . . .	286.89
Total Earnings for the year . . . . .	\$79,262.12
Total Cash receipts reverting and transferred to the State Treasurer . . . . .	\$79,256.12
Accounts receivable outstanding November 30, 1937 . . . . .	\$6.00
Accounts receivable increased . . . . .	\$6.00
MAINTENANCE APPROPRIATION	
Balance from previous year, brought forward . . . . .	\$27,641.13
Appropriation, current year . . . . .	\$1,272,080.00
Total . . . . .	\$1,299,721.13
Expenditures as Follows:	
Personal Services . . . . .	\$632,770.47
Food . . . . .	267,121.83
Medical and general care . . . . .	27,257.46
Religious instruction . . . . .	2,079.98
Farm . . . . .	4,228.76
Heat and other plant operation . . . . .	93,643.01
Travel, transportation and office expenses . . . . .	9,122.56
Garage and grounds (garage \$5,842.14; grounds, \$2,794.22) . . . . .	8,636.36
Clothing and materials . . . . .	45,485.05
Furnishings and household supplies . . . . .	62,560.82
Repairs ordinary . . . . .	36,349.19
Repairs and renewals . . . . .	30,081.38
Total Maintenance Expenditures . . . . .	\$1,219,336.87
Balance of Maintenance Appropriation, November 30, 1937 . . . . .	\$80,384.26
SPECIAL APPROPRIATIONS	
Balance December 1, 1936, brought forward . . . . .	\$74,942.01
Appropriations for current year . . . . .	85,200.00
Total . . . . .	\$160,142.01
Expended during the year (see statement below) . . . . .	\$29,745.18
Deductions made on appropriations . . . . .	* 53,635.14
Balance November 30, 1937, carried to next year . . . . .	\$76,761.69



APPROPRIATION	Act or Resolve	Total Amount Appropriated	Expended during fiscal year	Total Expended to date	Balance at end of year
Reception, building, equipment	1931-268	\$400,000.00	\$643.90	\$400,000.00	-
Mass. State Project No. M-2 Docket 960, Power Plant		383,503.40	2,337.60	383,503.40	-
Mass. State Project — 29, Docket 1944, Laboratory and Mortuary building		64,489.85	-	64,489.85	-
Mass. State Project No. M-3 Docket 2658, T. B. pavilion.		171,817.88	-	171,817.88	-
Mass. State Project No. M-6 Docket 2065, Three Officers Cottages.		46,954.81	-	46,954.81	-
Mass. State Project No. M-4A and M-5A, Docket 1991, furniture and equipment, M-4 and furn. and equip. M-5		42,404.10	-	42,404.10	-
Iron Fence.	1935-249	13,000.00	-	8,686.91	4,313.09
Mass. State Project No. M-111 Docket 1151, sprinklers		78,694.82	5,442.26	72,155.06	6,539.76
Laundry equipment	1936-304	1,500.00	1,294.38	1,294.38	205.62
Materials for W.P.A. Projects.	1936-304	30,000.00	456.89	29,926.63	73.37
Fire Protection	1937-234	62,200.00	-	-	62,200.00
Renewing and Renovating Plumbing, etc.	1937-234	20,000.00	19,567.58	19,567.58	432.42
Sterilization equipment	1937-234	3,000.00	2.57	2.57	2,997.43
Total . . . . .		\$1,317,564.86	\$29,745.18	\$1,240,803.17	\$76,761.69

## PER CAPITA

During the year the average number of patients has been, 2,356.164.

Total cost of maintenance, \$1,219,336.87.

Equal to a weekly per capita cost of (52 weeks to year), \$9.9521.

Total receipts for the year, \$79,262.12.

Equal to a weekly per capita of, \$.6469.

Total net cost of Maintenance for year, \$1,140,074.75.

Net weekly per capita, \$9.3052.

Respectfully submitted,

ROSE J. SICILIANO.

*Treasurer.*

Financial Statement Verified.  
Approved.

GEORGE G. MURPHY,  
*Comptroller.*

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION PRESCRIBED BY  
THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

(Data correct at end of institution year November 30, 1937)

Date of opening as a hospital for mental diseases, December 11, 1839.

Type of hospital: State:

Hospital plant:

Value of hospital property:	\$ 974,100.00
Real estate, including buildings . . . . .	3,884,018.87
Personal property . . . . .	429,343.75
Total . . . . .	\$5,287,462 62

Total acreage of hospital property owned, 224.66.

Total acreage under cultivation during 1936, 110.00; 1937, 78.008.

Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	9	4	13	4	—	4
Total physicians . . . . .	10	4	14	4	—	4
Stewards . . . . .	—	—	—	1	—	1
Resident dentists . . . . .	—	—	—	1	—	1
Pharmacists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	3	77	80	—	—	—
Other nurses and attendants . . . . .	155	216	371	3	2	5
Occupational therapists . . . . .	1	12	13	—	—	—
Social workers . . . . .	—	4	4	—	1	1
All other officers and employees . . . . .	141	99	240	2	2	4
Total officers and employees . . . . .	311	412	723	11	5	16

Classification by Diagnosis: September 30, 1937

Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	999	1,293	2,292	114	178	292
Alcoholics . . . . .	2	1	3	—	—	—
Total . . . . .	1,001	1,294	2,295	114	178	292
OTHER RACES:						
Insane . . . . .	28	44	72	6	5	11
All other cases . . . . .	1	—	1	1	—	1
Total . . . . .	29	44	73	7	5	12
Grand Total . . . . .	1,030	1,338	2,368	121	183	304

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	78	191	269
Other patients employed in general work of hospital on date of report . . . . .	444	529	973
Average daily number of all patients actually in hospital during year . . . . .	994.76	1,352.04	2,346.80
Voluntary patients admitted during year . . . . .	—	—	—
Persons given advice or treatment in out-patient clinics during year . . . . .	79	95	174

TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1937*

(Data in all of the following tables are based on the Statistical Year, October 1, 1936 to September 30, 1937)

	TOTAL			REGULAR COURT COMMITMENT (INSANE)			OBSERVATION			TEMPORARY CARE		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1936 . . . . .	1,120	1,581	2,701	1,116	1,577	2,693	3	4	7	1	-	1
Admissions during year:												
First admissions . . . . .	343	281	624	239	224	463	43	13	56	61	44	105
Readmissions . . . . .	112	103	215	75	82	157	17	4	21	20	17	37
Total admissions . . . . .	455	384	839	314	306	620	60	17	77	81	61	142
Transfers from other mental hospitals . . . . .	17	26	43	17	26	43	-	-	-	-	-	-
Total received during year . . . . .	472	410	882	331	332	663	60	17	77	81	61	142
Total on books during year . . . . .	1,592	1,991	3,583	1,447	1,909	3,356	63	21	84	82	61	143
Discharged from books during year:												
As recovered . . . . .	62	49	111	50	45	95	5	1	6	7	3	10
As improved . . . . .	78	107	185	66	96	162	4	6	10	8	5	13
As unimproved . . . . .	54	56	110	16	21	37	11	1	12	27	34	61
As without psychosis . . . . .	59	27	86	3	2	5	34	10	44	22	15	37
Total discharged to community . . . . .	253	239	492	135	164	299	54	18	72	64	57	121
Transferred to other mental hospitals . . . . .	26	68	94	26	68	94	-	-	-	-	-	-
Died during year . . . . .	162	163	325	140	158	298	5	2	7	17	3	20
Total discharged, transferred and died during year . . . . .	441	470	911	301	390	691	59	20	79	81	60	141
Patients remaining on books of hospital at end of year:												
In hospital . . . . .	1,030	1,338	2,368	1,025	1,336	2,361	4	1	5	1	1	2
On parole or otherwise absent . . . . .	121	304	425	121	183	304	-	-	-	-	-	-
Total . . . . .	1,151	1,642	2,793	1,146	1,519	2,665	4	1	5	1	1	2

## SUPPLEMENTARY DATA

	Males	Females	Total
Average daily number of patients on books during year . . . . .	1,129.98	1,519.00	2,648.98
Actually in institution during year . . . . .	994.76	1,352.04	2,346.80
In family care . . . . .	-	11.71	11.71
On visit . . . . .	133.14	154.98	288.12
On escape . . . . .	2.08	.27	2.35
Number of patients actually remaining in institution September 30, 1937:			
State . . . . .	956	1,165	2,121
Reimbursing . . . . .	74	173	247
Ex-service patients paid by Federal Government . . . . .	1	1	2
Number of patients in family care September 30, 1937 . . . . .	-	6	6
State . . . . .	-	6	6
Number of non-insane patients in hospital at end of institution year:			
Others . . . . .	3	1	4



TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States <sup>1</sup>	218	153	371	81	72	64	65	58	48
Austria	1	2	3	3	3	3	2	1	1
Canada <sup>2</sup>	25	26	51	30	37	26	23	27	15
Denmark	—	—	—	1	—	—	—	—	—
England	3	4	7	4	8	2	8	10	5
France	—	—	—	2	1	—	1	1	—
Germany	2	2	4	3	3	2	4	4	2
Greece	5	—	5	5	5	5	—	—	—
Holland	—	—	—	1	—	—	1	—	—
Hungary	1	—	1	—	—	—	—	—	—
Ireland	53	50	103	112	113	103	86	90	81
Italy	15	16	31	27	24	24	19	17	17
Norway	2	1	3	1	1	1	2	—	—
Poland	4	2	6	4	4	4	2	2	2
Portugal	1	—	1	2	3	2	—	—	—
Roumania	—	—	—	1	1	1	—	—	—
Russia	4	13	17	9	8	8	14	14	13
Scotland	2	1	3	5	2	2	5	3	3
South America	—	1	1	—	—	—	1	1	1
Sweden	2	2	4	5	5	4	2	3	2
Turkey in Asia	1	1	2	1	1	1	1	1	1
West Indies <sup>3</sup>	1	1	2	2	2	2	1	1	1
Other Countries	2	4	6	5	5	5	2	2	2
Unknown	1	2	3	39	45	38	42	46	41
Total	343	281	624	343	343	297	281	281	235

<sup>1</sup>Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the U. S.<sup>2</sup>Includes Newfoundland.<sup>3</sup>Except Cuba, Porto Rico and Virgin Islands.

TABLE 4. Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born

AGE AT ADMI- SION YEARS	NATIVE BORN						FOREIGN BORN										Nativity Unknown																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Aggregate			Total			Parentage			Total	Time in United States before Admission																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	M.	F.	T.	M.	F.	T.	M.	F.	T.		M.	F.	T.	M.	F.	T.		M.	F.	T.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
0-14	1	5	1	7	3	10	1	11	1	2	3	1	2	3	1	1	2	3	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth . . . . .	218	153	371
Citizens by naturalization . . . . .	54	28	82
Aliens . . . . .	25	40	65
Others . . . . .	1	1	2
Citizenship unknown . . . . .	45	59	104
Total . . . . .	343	281	624

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	TOTAL			With syphilitic meningo-encephalitis			With other forms of syphilis			Alcoholic psychoses			Due to drugs, etc.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	14	12	26	2	2	4	—	—	—	2	—	2	—	—	—
Chinese . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
English . . . . .	6	9	15	—	—	—	—	—	—	1	—	1	—	—	—
French . . . . .	1	1	2	—	1	1	—	—	—	1	—	1	—	—	—
German . . . . .	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—
Greek . . . . .	6	—	6	3	—	3	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	13	22	35	1	—	1	—	—	—	—	—	—	—	—	—
Irish . . . . .	108	90	198	—	—	—	—	—	—	18	7	25	1	—	1
Italian <sup>1</sup> . . . . .	27	20	47	1	—	1	—	—	—	2	1	3	—	—	—
Lithuanian . . . . .	4	2	6	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup> . . . . .	4	3	7	—	—	—	—	—	—	—	—	—	—	—	—
Scotch . . . . .	2	2	4	—	—	—	1	—	1	—	—	—	—	—	—
Slavonic <sup>3</sup> . . . . .	5	4	9	—	1	1	—	—	—	—	—	—	—	—	—
Spanish-American . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Turkish . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup> . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Mixed . . . . .	120	96	216	1	1	2	—	—	—	17	5	22	1	1	2
Race unknown . . . . .	26	16	42	—	—	—	—	—	—	4	1	5	—	—	—
Total . . . . .	343	281	624	8	5	13	1	—	1	45	14	59	2	1	3

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Traumatic psychoses			With cerebral arteriosclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	—	—	—	3	6	9	—	—	—	—	—	—	1	1	2
Chinese . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
English . . . . .	—	—	—	3	5	8	—	—	—	—	—	—	—	—	—
French . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German . . . . .	—	—	—	2	2	4	—	—	—	—	—	—	—	—	—
Greek . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	—	—	—	3	7	10	—	—	—	—	—	—	—	1	1
Irish . . . . .	2	—	2	54	39	93	—	—	—	1	1	2	4	4	6
Italian <sup>1</sup> . . . . .	—	—	—	6	4	10	—	—	—	—	—	—	—	—	—
Lithuanian . . . . .	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup> . . . . .	—	—	—	3	3	6	—	—	—	—	—	—	—	—	—
Scotch . . . . .	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1
Slavonic <sup>3</sup> . . . . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Spanish-American . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup> . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed . . . . .	1	1	2	47	35	82	—	1	1	3	—	3	4	10	14
Race unknown . . . . .	1	—	1	15	11	26	—	—	—	—	—	—	—	1	1
Total . . . . .	4	1	5	140	113	253	—	1	1	3	1	4	7	18	25

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes, and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup>Except Cuba.



TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Involutional psychoses			Due to other metabolic diseases, etc.			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	3	1	4	—	—	—	1	2	3
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	1	1	—	1	1	—	—	—	1	1	2
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	1	3	4	—	1	1	4	7	11
Irish	1	3	4	—	3	3	3	4	7	—	1	1	8	12	20
Italian <sup>1</sup>	—	—	—	—	—	—	1	—	1	—	—	—	4	8	12
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
Spanish-American	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Indian <sup>4</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	1	1	2	1	3	4	5	6	11	1	—	1	9	11	20
Race unknown	—	—	—	—	1	1	—	1	1	—	—	—	—	—	—
Total	2	4	6	1	8	9	14	16	30	1	2	3	30	42	72

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Dementia praecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Hebrew	1	—	1	—	2	2	—	—	—	—	—	—	—	—	—	3	1	4
Irish	5	3	8	1	6	7	—	1	1	—	—	—	1	—	1	12	6	18
Italian <sup>1</sup>	6	1	7	1	2	3	—	—	—	—	—	—	1	1	1	6	3	9
Lithuanian	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	1	—	1
Portuguese	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Slavonic <sup>3</sup>	2	1	3	—	1	1	—	—	—	—	—	—	—	—	—	1	—	1
Spanish-American	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Turkish	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	1	1
West Indian <sup>4</sup>	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	9	6	15	2	3	5	3	2	5	2	3	5	—	—	—	13	7	20
Race unknown	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	6	—	6
Total	28	12	40	4	16	20	4	3	7	2	3	5	2	1	3	45	20	65

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.<sup>4</sup>Except Cuba.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0-14 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	8	5	13	-	-	-	-	-	-	-	-	-	-	-	-
With other forms of syphilis	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	45	14	59	-	-	-	-	-	-	1	1	2	4	-	4
Due to drugs, etc.	2	1	3	-	-	-	-	-	-	-	-	-	-	1	1
Traumatic psychoses	4	1	5	-	-	-	-	-	-	-	-	-	1	-	1
With cerebral arteriosclerosis	140	113	253	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	3	1	4	-	-	-	1	1	2	-	-	-	1	-	1
Senile psychoses	7	18	25	-	-	-	-	-	-	-	-	-	-	-	-
Involuntal psychoses	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	1	8	9	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	14	16	30	-	-	-	1	-	1	-	-	-	-	-	-
Psychoneuroses	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	30	42	72	-	-	-	4	2	6	3	4	7	7	8	15
Dementia praecox	28	12	40	-	-	-	5	1	6	5	2	7	5	1	6
Paranoia and paranoid conditions	4	16	20	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	4	3	7	-	-	-	2	-	2	-	-	-	-	-	-
With mental deficiency	2	3	5	-	-	-	1	-	1	-	1	1	-	-	-
Undiagnosed psychoses	2	1	3	1	-	1	-	-	-	-	-	-	-	-	-
Without psychoses	45	20	65	-	-	-	7	1	8	3	2	5	2	2	4
Total	343	281	624	1	-	1	21	5	26	12	10	22	20	12	32

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years			55-59 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	-	-	-	1	-	1	3	-	3	2	1	3	-	2	2	2	2	4
With other forms of syphilis	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	2	2	4	4	3	7	5	-	5	5	1	6	8	2	10	9	3	12
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-
Traumatic psychoses	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1	-	1	1
With cerebral arteriosclerosis	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3	9	7	16
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
With convulsive disorders (epil.)	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Involuntal psychoses	-	-	-	-	-	-	-	-	-	1	3	4	-	-	-	-	1	1
Due to other metabolic diseases, etc.	-	-	-	-	-	-	1	1	2	-	-	-	-	2	2	-	3	3
With organic changes of nervous system	-	-	-	-	-	-	1	-	1	3	3	6	1	-	1	3	3	6
Psychoneuroses	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	2	3	5	5	3	8	1	9	10	2	4	6	3	4	7	2	2	4
Dementia praecox	5	2	7	3	-	3	2	3	5	2	1	3	-	2	2	-	-	-
Paranoia and paranoid conditions	-	-	-	-	1	1	1	2	3	-	2	2	-	4	4	-	2	2
With psychopathic personality	1	1	2	-	1	1	-	1	1	-	-	-	1	-	1	-	-	-
With mental deficiency	1	-	1	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Without psychoses	5	2	7	8	1	9	5	2	7	4	1	5	1	1	2	1	1	2
Total	17	11	28	22	9	31	20	19	39	21	18	39	17	19	36	26	26	52

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	1	2	3	6	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	23	21	44	35	17	52	27	29	56	27	18	45	15	12	27	2	8	10
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epil.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Senile psychoses	1	1	2	2	5	7	1	5	6	-	1	1	1	4	5	2	2	4
Involutional psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	3	3	2	3	5	3	1	4	-	2	2	-	1	1	-	-	-
Psychoneuroses	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses	1	2	3	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Dementia praecox	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	3	3	6	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Without psychoses	4	2	6	2	1	3	2	2	4	1	1	2	-	1	1	-	-	-
Total	37	34	71	47	29	76	34	38	72	28	23	51	16	18	34	4	10	14



TABLE 8. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	TOTAL			Illiterate			Reads Only		Reads and Writes		Common School		High School		College		Unknown	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	8	5	13	-	1	1	-	-	-	1	-	1	4	8	3	-	-	-
With other forms of syphilis	1	1	2	-	-	-	-	-	-	-	-	-	30	7	37	1	3	1
Alcoholic psychoses	45	14	59	1	1	2	-	-	3	-	-	1	1	1	2	-	-	-
Due to drugs, etc.	2	1	3	-	-	-	-	-	-	-	-	3	1	4	1	-	-	-
Traumatic psychoses	4	1	5	-	-	-	-	-	-	-	-	61	62	123	20	11	31	-
With cerebral arteriosclerosis	140	113	253	12	7	19	1	1	18	7	25	3	1	1	4	-	-	-
With other disturbances of circulation	3	1	4	-	-	-	-	-	-	-	-	3	1	1	4	-	-	-
With convulsive disorders (epilepsy)	3	1	4	-	-	-	-	-	-	-	-	3	1	1	4	-	-	-
Senile psychoses	7	18	25	-	-	-	-	-	-	-	-	2	4	6	6	-	-	-
Involuntary psychoses	2	4	6	-	-	-	-	-	-	-	-	2	7	4	11	-	-	-
Due to other metabolic diseases, etc.	14	16	30	2	2	4	-	-	2	-	2	7	4	11	1	1	1	7
With organic changes of nervous system	1	8	9	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-
Psychoneuroses	30	42	72	-	1	2	-	-	-	-	-	1	1	1	1	-	-	-
Manic-depressive psychoses	3	2	5	-	-	-	-	-	-	-	-	11	12	23	13	17	30	4
Dementia praecox	28	12	40	1	1	2	3	3	1	2	3	12	4	16	15	7	22	1
Paranoia and paranoid conditions	4	16	20	-	2	2	-	-	4	4	2	6	8	2	2	1	1	1
With psychopathic personality	4	3	7	-	-	-	-	-	-	-	-	4	1	5	1	1	1	1
With mental deficiency	2	3	5	-	-	-	-	-	-	-	-	2	2	2	4	-	-	-
Undiagnosed psychoses	2	1	3	1	1	2	-	-	-	-	-	1	1	1	1	-	-	-
Without psychoses	45	20	65	2	2	4	-	-	2	1	3	33	13	46	6	2	8	1
Total	343	281	624	19	16	35	-	4	4	27	16	43	180	137	317	71	55	126
																6	10	16
				</														

TABLE 9. *Environment of First Admissions Classified with Reference to Principal Psychoses*

Psychoses	Total			0-2,499		2,500-9,999		10,000-24,999		25,000-49,999		50,000-99,999		100,000-249,999		500,000+		Unknown			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	8	5	13	-	-	-	-	-	-	-	-	-	-	-	-	8	5	13	-	-	-
With other forms of syphilis	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Alcoholic psychoses	45	14	59	-	-	-	-	-	-	-	-	-	-	-	-	45	14	59	-	-	-
Due to drugs, etc.	2	1	3	-	-	-	-	1	-	-	-	-	-	-	-	1	1	2	-	-	-
Traumatic psychoses	4	1	5	-	-	-	-	-	-	-	-	-	-	-	-	1	3	4	-	-	-
With cerebral arteriosclerosis	140	113	253	-	-	-	-	2	2	1	3	4	-	2	2	136	105	241	1	3	4
With other disturbances of circulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	3	1	4	-	-	-
Senile psychoses	7	18	25	1	-	-	-	-	-	-	1	1	-	-	-	6	17	23	-	-	-
Involutorial psychoses	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-	2	4	6	-	-	-
Due to other metabolic diseases, etc.	1	8	9	-	-	-	-	-	-	-	-	-	-	-	-	1	8	9	-	-	-
With organic changes of nervous system.	14	16	30	-	-	-	-	-	-	-	-	-	-	-	-	12	16	28	2	-	2
Psychoneuroses	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	1	2	2	-	-	-
Manic-depressive psychoses	30	42	72	-	-	-	-	-	-	2	2	-	-	-	-	30	39	69	-	-	1
Dementia praecox	28	12	40	-	-	-	-	-	-	-	-	1	-	-	-	27	12	39	-	-	1
Paranoia and paranoid conditions	4	16	20	-	-	-	-	-	-	1	1	-	-	-	-	4	15	19	-	-	1
With psychopathic personality	4	3	7	-	-	-	-	-	-	-	-	3	3	6	-	3	3	6	1	-	1
With mental deficiency	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5	-	-	-
Undiagnosed psychoses	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3	-	-	-
Without psychoses	45	20	65	-	-	-	-	2	-	-	-	-	-	-	-	38	19	57	4	1	5
Total	343	281	624	1	-	1	-	3	2	5	1	7	8	4	-	324	266	590	9	5	14

TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Dependent			Marginal			Comfortable			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	8	5	13	1	1	2	7	4	11	-	-	-	-	-	-
With other forms of syphilis . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
Alcoholic psychoses . . . . .	45	14	59	7	2	9	35	12	47	-	-	-	3	-	3
Due to drugs, etc. . . . .	2	1	3	-	-	-	2	-	2	-	-	-	-	1	1
Traumatic psychoses . . . . .	4	1	5	-	-	-	4	1	5	-	-	-	-	-	-
With cerebral arteriosclerosis . . . . .	140	113	253	36	20	56	77	67	144	1	1	2	26	25	51
With other disturbances of circulation . . . . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	3	1	4	-	-	-	2	1	3	-	-	-	1	-	1
Senile psychoses . . . . .	7	18	25	4	5	9	2	10	12	-	-	-	1	3	4
Involuntary psychoses . . . . .	2	4	6	2	1	3	-	3	3	-	-	-	-	-	-
Due to other metabolic diseases, etc. . . . .	1	8	9	-	-	-	1	6	7	-	-	-	-	2	2
With organic changes of nervous system . . . . .	14	16	30	3	1	4	8	10	18	-	-	-	3	5	8
Psychoneuroses . . . . .	1	2	3	-	-	-	1	2	3	-	-	-	-	-	-
Manic-depressive psychoses . . . . .	30	42	72	5	4	9	25	37	62	-	1	1	-	-	-
Dementia praecox . . . . .	28	12	40	6	4	10	21	8	29	-	-	-	1	-	1
Paranoia and paranoid conditions . . . . .	4	16	20	1	1	2	2	14	16	-	-	-	1	1	2
With psychopathic personality . . . . .	4	3	7	3	1	4	1	2	3	-	-	-	-	-	-
With mental deficiency . . . . .	2	3	5	-	-	-	2	3	5	-	-	-	-	-	-
Undiagnosed psychoses . . . . .	2	1	3	1	-	1	1	1	2	-	-	-	-	-	-
Without psychoses . . . . .	45	20	65	8	4	12	35	13	48	1	1	2	1	2	3
Total . . . . .	343	281	624	77	44	121	227	195	422	2	3	5	37	39	76

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	8	5	13	-	1	1	5	-	5	3	3	6	-	1	1
With other forms of syphilis . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
Alcoholic psychoses . . . . .	45	14	59	-	-	-	-	-	-	45	14	59	-	-	-
Due to drugs, etc. . . . .	2	1	3	-	-	-	1	-	1	1	1	2	-	-	-
Traumatic psychoses . . . . .	4	1	5	2	-	2	-	-	-	2	1	3	-	-	-
With cerebral arteriosclerosis . . . . .	140	113	253	17	56	73	50	13	63	48	3	51	25	41	66
With other disturbances of circulation . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy) . . . . .	3	1	4	2	1	3	1	-	1	-	-	-	-	-	-
Senile psychoses . . . . .	7	18	25	1	11	12	1	2	3	3	1	4	2	4	6
Involuntary psychoses . . . . .	2	4	6	-	3	3	-	1	1	1	-	1	1	-	1
Due to other metabolic diseases, etc. . . . .	1	8	9	-	6	6	-	-	-	1	1	2	-	1	1
With organic changes of nervous system . . . . .	14	16	30	2	8	10	5	-	5	5	-	5	2	8	10
Psychoneuroses . . . . .	1	2	3	-	1	1	-	1	1	1	-	1	-	-	-
Manic-depressive psychoses . . . . .	30	42	72	9	19	28	10	13	23	11	7	18	-	3	3
Dementia praecox . . . . .	28	12	40	7	10	17	6	2	8	15	-	15	-	-	-
Paranoia and paranoid conditions . . . . .	4	16	20	1	5	6	-	6	6	2	3	5	1	2	3
With psychopathic personality . . . . .	4	3	7	2	1	3	2	-	2	-	2	2	-	-	-
With mental deficiency . . . . .	2	3	5	1	-	1	1	2	3	-	1	1	-	-	-
Undiagnosed psychoses . . . . .	2	1	3	1	-	1	1	-	1	-	-	-	-	1	1
Without psychoses . . . . .	45	20	65	10	8	18	6	2	8	27	10	37	2	-	2
Total . . . . .	343	281	624	55	131	186	90	42	132	165	47	212	33	61	94



TABLE 12. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

Psychoses	Total			Single			Married			Widowed			Divorced			Separated			Unknown				
	M.		T.	M.		F.	T.	M.		F.	T.	M.		F.	T.	M.		F.	T.	M.		F.	T.
With syphilitic meningo-encephalitis	8	5	13	-	-	-	-	5	1	6	-	3	3	1	2	2	-	-	-	-	-	-	-
With other forms of syphilis	1	1	2	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
Alcoholic psychoses	45	14	59	21	3	24	25	12	7	19	10	4	14	-	-	1	1	1	1	1	1	1	
Due to drugs, etc.	2	1	3	1	1	2	3	1	1	2	-	-	-	1	-	-	-	-	-	-	-	-	
Traumatic psychoses	4	1	5	-	-	-	-	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	
With cerebral arteriosclerosis	140	113	253	31	34	65	95	50	25	75	48	50	98	4	5	5	2	7	2	1	3	2	
With other disturbances of circulation	-	1	1	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	
With convulsive disorders (epilepsy)	3	1	4	3	1	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Senile psychoses	7	18	25	2	8	10	12	-	2	2	3	8	11	1	-	1	-	-	-	-	-	-	
Involuntal psychoses	2	4	6	1	3	4	5	1	1	2	2	-	-	2	2	-	-	-	-	-	-	-	
Due to other metabolic diseases, etc.	1	8	9	-	2	2	3	1	2	3	-	2	2	-	-	-	-	-	-	-	-	-	
With organic changes of nervous system	14	16	30	4	4	8	12	6	5	11	4	6	10	-	-	-	-	-	-	-	-	-	
Psychoneuroses	1	2	3	1	-	2	3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	
Manic-depressive psychoses	30	42	72	18	14	32	52	8	22	30	2	4	6	1	-	1	2	3	-	-	-	-	
Dementia praecox	28	12	40	22	7	29	31	6	3	9	-	1	1	-	1	-	1	1	-	-	-	-	
Paranoia and paranoid conditions	4	16	20	3	3	6	9	1	5	6	-	3	3	-	2	2	3	3	-	-	-	-	
With psychopathic personality	4	3	7	3	2	5	5	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
With mental deficiency	2	3	5	2	3	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Undiagnosed psychoses	2	1	3	1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Without psychoses	45	20	65	24	1	25	25	14	7	21	1	4	8	1	2	2	-	-	-	-	-	-	
Total	343	281	624	137	93	230	320	110	86	196	72	85	157	9	7	16	12	8	20	3	2	5	

TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1937, All Cases in Residence and All Cases Out on September 30, 1937, by Status of Admission and Sex*

MENTAL DISORDERS	ALL ADMISSIONS				ALL DISCHARGES				ALL DEATHS				RESIDENT POPULATION				PATIENTS OUT ON VISIT ETC.															
	First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions		First Admissions		Readmissions													
	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.	M. F.	T.												
<i>Psychoses Due to or Associated with Infection:</i>																																
Syphilis of the Central Nervous System:																																
Meningo-encephalic type (general paresis)	8	5	13	1	1	2	4	1	5	-	-	-	10	2	12	3	1	4	34	16	50	13	8	21	3	2	5	1	2	3		
Meningo-vascular type (cerebral syphilis)	1	-	1	1	-	1	-	-	-	-	1	1	2	1	3	-	-	-	1	2	3	-	1	1	-	-	-	-	-	-		
Other types	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-		
With epidemic encephalitis	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
With other infectious disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<i>Psychoses Due to Intoxication:</i>																																
Due to Alcohol:																																
Pathological intoxication	2	1	3	-	1	1	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	-	
Delirium tremens	2	-	2	-	-	-	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Korsakow's psychosis	12	6	18	1	1	2	5	2	7	-	1	1	3	2	5	-	-	-	19	14	33	5	1	6	2	1	3	-	-	-	-	
Acute hallucinosis	14	3	17	1	1	2	12	4	16	9	1	10	2	2	2	-	-	-	16	1	17	4	1	5	11	1	12	4	-	4	-	
Other types	15	4	19	13	-	13	7	-	7	9	-	9	1	2	3	3	1	4	52	17	69	34	6	40	4	2	6	2	-	2	-	
Due to Drugs or Other Exogenous Poisons:																																
Due to opium and derivatives	1	-	1	-	-	-	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	
Due to other drugs	1	1	2	-	1	1	-	1	1	-	1	1	-	1	1	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	
<i>Psychoses Due to Trauma:</i>																																
Traumatic delirium	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	1	-	-	-	-	-	
Post-traumatic personality disorders	1	-	1	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3	1	-	1	-	-	-	-
Post-traumatic mental deterioration	1	-	1	-	-	-	1	-	1	-	1	1	2	2	-	-	-	-	1	-	1	2	-	2	-	-	-	-	-	-	-	-
Other types	1	-	1	-	-	-	1	-	1	-	1	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Other types	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
<i>Psychoses Due to Disturbance of Circulation:</i>																																
With cerebral arteriosclerosis	140	113	253	11	9	20	26	31	57	2	6	8	86	75	161	12	6	18	120	113	233	11	17	28	13	14	27	3	1	4	-	-
With cerebral embolism	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cardio-renal disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other types	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Psychoses Due to Convulsive Disorders (Epilepsy):</i>																																
Epileptic deterioration	1	-	1	1	-	1	2	1	3	-	1	1	-	1	1	-	-	-	1	4	5	4	6	10	-	1	1	-	-	-	-	-
Epileptic clouded states	1	1	2	3	1	4	-	-	-	-	-	-	1	1	-	1	2	4	5	9	9	9	6	15	-	1	1	-	-	-	-	-
Other epileptic types	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	1	1	1	-	-	-	-	-	-	-	-





TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1937, All Cases in Residence and All Cases Out on September 30, 1937, by Status of Admsston and Sex — Concluded*

MENTAL DISORDERS	ALL ADMISSIONS			ALL DISCHARGES			ALL DEATHS			RESIDENT POPULATION			PATIENTS OUT ON VISIT ETC.											
	First Admissions		Read-missions	First Admissions		Read-missions	First Admissions		Read-missions	First Admissions		Read-missions	First Admissions		Read-missions									
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.										
Dementia praecox (schizophrenia):																								
Simple type . . .	4	1	5	3	1	4	2	—	2	—	1	—	16	8	24	13	10	23	1	1	2	—	2	
Hebephrenic type . . .	3	2	5	4	2	5	5	—	1	—	—	—	48	63	111	36	71	107	1	—	1	—	2	
Catatonic type . . .	5	3	8	2	2	4	—	—	1	—	3	—	28	37	65	30	32	62	2	1	—	—	3	
Paranoid type . . .	14	5	19	9	3	12	4	1	4	1	5	—	79	94	173	75	91	166	6	—	1	—	7	
Other types . . .	2	1	3	5	—	5	2	—	2	—	—	—	—	1	—	4	5	9	1	1	—	—	1	
Paranoia . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	
Paranoid conditions . . .	4	16	20	1	7	8	2	7	9	—	6	6	33	126	159	11	48	59	1	7	8	—	4	
With psychopathic personality	4	3	7	2	2	4	7	4	11	2	2	4	2	6	8	6	11	17	1	4	5	—	5	
With mental deficiency:																								
Idiot . . .	—	1	1	—	—	—	2	1	3	—	—	—	—	—	2	—	—	—	—	—	—	—	—	
Imbecile . . .	—	—	—	1	1	2	2	1	3	—	—	—	16	13	29	12	16	28	1	—	1	—	1	
Moron . . .	2	1	3	2	4	6	1	1	2	—	3	3	19	19	38	25	25	50	1	5	6	—	7	
Unknown . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	
Undiagnosed Psychoses:	2	1	1	1	1	2	—	1	1	—	—	—	—	—	4	3	6	9	—	—	—	—	1	
Without Psychoses:																								
Alcoholism . . .	14	5	19	3	1	4	14	4	18	2	1	3	—	—	1	1	—	1	—	—	—	—	—	
Drug addiction . . .	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Disorders due to epidemic encephalitis . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Psychopathic personality:																								
With pathological emotionality . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
With social or amoral trends . . .	2	1	3	—	—	—	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Mixed types . . .	8	—	8	3	1	4	8	—	8	3	1	4	—	—	—	—	—	—	—	—	—	—	—	
Epilepsy . . .	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Mental deficiency:	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Imbecile . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Moron . . .	2	1	2	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other non-psychotic diseases or conditions . . .	3	7	10	2	2	4	2	7	9	2	2	4	—	—	—	—	—	—	—	—	—	—	—	
No other conditions . . .	13	4	17	4	1	5	15	4	19	4	2	6	—	—	1	—	—	—	—	—	—	—	—	
Grand Total . . .	343	281	624	112	103	215	178	147	325	75	92	167	129	137	266	33	26	59	622	800	1,422	408	538	946

NOTE: — Admissions and discharges do not include transfers.

TABLE 13-A. *Mental Disorders of Readmission, 1937, by Sex*

MENTAL DISORDERS	READMISSIONS		
	M.	F.	T.
With syphilitic meningo-encephalitis	1	1	2
With other forms of syphilis	1	—	1
Alcoholic psychoses	15	3	18
Due to drugs, etc.	—	1	1
Traumatic psychoses	1	—	1
With cerebral arteriosclerosis	11	9	20
With convulsive disorders (epilepsy)	4	1	5
Senile psychoses	2	—	2
Involutional psychoses	1	2	3
Due to other metabolic diseases, etc.	1	—	1
With organic changes of nervous system	3	1	4
Psychoneuroses	3	1	4
Manic-depressive psychoses	25	57	82
Dementia praecox	23	7	30
Paranoia and paranoid conditions	1	7	8
With psychopathic personality	2	2	4
With mental deficiency	4	6	10
Without psychoses	14	5	19
Total	112	103	215

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	TOTAL			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	4	1	5	—	—	—	4	1	5	—	—	—
With other forms of syphilis	—	1	1	—	—	—	—	1	1	—	—	—
With epidemic encephalitis	—	2	2	—	—	—	—	1	1	—	1	1
With other infectious diseases	—	1	1	—	—	—	—	1	1	—	—	—
Alcoholic psychoses	47	9	56	29	5	34	12	3	15	6	1	7
Due to drugs, etc.	1	3	4	—	1	1	—	1	1	1	1	2
Traumatic psychoses	3	1	4	—	—	—	2	—	2	1	1	2
With cerebral arteriosclerosis	28	37	65	4	4	8	9	13	22	15	20	35
With other disturbances of circulation	—	2	2	—	1	1	—	—	—	—	1	1
With convulsive disorders (epilepsy)	5	3	8	1	—	1	2	1	3	2	2	4
Senile psychoses	3	12	15	—	—	—	2	6	8	1	6	7
Due to other metabolic diseases, etc.	1	5	6	—	1	1	—	3	3	1	1	2
With organic changes of nervous system	5	2	7	—	1	1	1	—	1	4	1	5
Psychoneuroses	4	10	14	2	3	5	1	6	7	1	1	2
Manic-depressive psychoses	58	94	152	24	29	53	30	56	86	4	9	13
Dementia praecox	20	3	23	1	1	2	8	—	8	11	2	13
Paranoia and paranoid conditions	2	13	15	—	1	1	—	8	8	2	4	6
With psychopathic personality	9	6	15	1	1	2	4	3	7	4	2	6
With mental deficiency	4	6	10	—	1	1	3	3	6	1	2	3
Undiagnosed psychoses	—	1	1	—	—	—	—	—	—	—	1	1
Without psychoses	59	27	86	—	—	—	—	—	—	—	—	—
Total	253	239	492	62	49	111	78	107	185	54	56	110

TABLE 15. *Hospital Residence during This Admission of Court First Admissions Discharged during 1937*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	4	1	5	.82	.12	.68
With epidemic encephalitis	—	1	1	—	.04	.04
With other infectious diseases	—	1	1	—	.29	.29
Alcoholic psychoses	29	7	36	1.08	3.47	1.53
Due to drugs, etc.	1	1	2	.04	.29	.16
Traumatic psychoses	2	—	2	.29	—	.29
With cerebral arteriosclerosis	26	31	57	.18	.49	.35
With other disturbances of circulation	—	2	2	—	.12	.12
With convulsive disorders (epilepsy)	2	1	3	.04	.04	.04
Senile psychoses	2	10	12	.12	.50	.44
Due to other metabolic diseases, etc.	—	3	3	—	.08	.08
With organic changes of nervous system	3	1	4	.04	.29	.10
Psychoneuroses	3	6	9	.29	.22	.24
Manic-depressive psychoses	35	45	80	1.12	1.09	1.10
Dementia praecox	13	1	14	3.27	.29	3.06
Paranoia and paranoid conditions	2	7	9	.08	.61	.49
With psychopathic personality	7	4	11	1.10	.43	.85
With mental deficiency	3	3	6	2.88	.04	1.45
Undiagnosed psychoses	—	1	1	—	.04	.04
Without psychoses	46	21	67	.07	.05	.06
Total	178	147	325	.80	.71	.76





[illegible]



	7	22	29	1	4	5	2	7	9	3	6	9	2	—	2	6	13	19	12	5	17	1	11	12	1	2	3
<i>Diseases of the Digestive System:</i>																											
Ulcer of the stomach and duodenum . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hernia, intestinal obstruction . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Biliary calculi and other diseases of the gall bladder and biliary passages . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Peritonitis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Genito-Urinary System:</i>																											
Nephritis (acute, chronic and unspecified) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of the kidneys and ureters (puerperal diseases excepted) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diseases of the bladder (tumors excepted) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Violent and Accidental Deaths:</i>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Suicide . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other external causes . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	7	22	29	1	4	5	2	7	9	3	6	9	2	—	2	6	13	19	12	5	17	1	11	12	1	2	3

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

[illegible]



TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded

PSYCHOSES	55-59 years			60-64 years			65-69 years			70-74 years			75-79 years			80-84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	2	-	2	2	-	2	-	-	-	2	1	3	-	-	-	-	-	-	-	-	-
With other forms of syphilis	-	-	-	1	-	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
With other infectious diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	7	4	11	10	8	18	21	11	32	23	13	36	20	19	39	14	10	24	1	14	15
With convulsive disorders (epilepsy)	-	1	1	1	1	2	-	3	5	8	1	3	4	-	3	2	4	6	1	7	8
Senile psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Evolutional psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses	-	1	1	1	1	1	-	1	1	-	-	-	-	1	1	-	2	2	-	-	-
Manic-depressive psychoses	1	1	2	1	-	1	-	2	3	5	-	-	-	-	1	-	-	-	-	-	-
Dementia praecox	1	1	1	3	2	5	-	1	4	5	-	2	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	11	11	22	21	17	38	29	24	53	27	20	47	25	27	52	17	16	33	2	21	23

TABLE 18. Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses

Psychoses	Total		Less than 1 month		1-3 months		4-7 months		8-12 months		1-2 years		3-4 years	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
With syphilitic meningo-encephalitis	13	3	16	3	2	1	3	5	1	1	1	2	1	1
With other forms of syphilis	2	3	1	1	1	1	1	1	1	1	1	1	1	1
With other infectious diseases	9	5	14	1	1	2	3	1	1	1	1	1	1	1
Alcoholic psychoses	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Due to drugs, etc.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Traumatic psychoses	1	2	1	2	1	1	1	1	1	1	1	1	1	1
With cerebral arteriosclerosis	98	81	179	51	23	20	43	7	3	6	14	20	3	7
With convulsive disorders (epilepsy)	2	2	4	1	2	3	5	1	2	2	1	1	1	1
Senile psychoses	7	22	29	2	2	3	1	2	3	2	8	1	1	1
Involuntal psychoses	1	1	2	4	1	1	1	1	1	1	2	1	1	1
Due to other metabolic diseases, etc.	3	6	9	5	1	1	2	3	1	1	2	2	1	1
With organic changes of nervous system	2	3	5	2	1	1	2	3	1	1	2	3	1	1
Psychoneuroses	6	13	19	2	2	3	5	1	2	3	1	2	1	1
Manic-depressive psychoses	12	17	29	1	1	1	1	1	1	1	1	2	1	1
Dementia praecox	1	11	12	1	1	1	1	1	1	1	1	2	1	1
Paranoia and paranoid conditions	1	2	3	1	1	1	1	1	1	1	1	2	1	1
With mental deficiency	1	1	2	1	1	1	1	1	1	1	1	2	1	1
Total	162	163	325	62	32	30	62	14	6	9	10	29	6	12

Psychoses	5-6 years		7-8 years		9-10 years		11-12 years		13-14 years		15-19 years		20 years and over	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
With syphilitic meningo-encephalitis	2	2	1	1	1	1	1	1	1	1	1	1	1	1
With other forms of syphilis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
With other infectious diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Alcoholic psychoses	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Due to drugs, etc.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Traumatic psychoses	2	1	3	1	2	1	3	1	1	1	1	1	1	1
With cerebral arteriosclerosis	1	1	2	1	1	1	1	2	1	1	1	1	1	1
With convulsive disorders (epilepsy)	1	1	2	2	1	1	1	2	1	1	1	1	1	1
Senile psychoses	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Involuntal psychoses	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Due to other metabolic diseases, etc.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
With organic changes of nervous system	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Psychoneuroses	3	3	1	1	1	1	1	1	1	1	1	1	1	1
Manic-depressive psychoses	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dementia praecox	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Paranoia and paranoid conditions	1	1	1	1	1	1	1	1	1	1	1	1	1	1
With mental deficiency	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	10	3	13	3	5	3	8	7	2	4	6	5	6	9

TABLE 19. *Average Length of Hospital Residence during the Present Admission of All First Admissions in Residence on September 30, 1937*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	34	16	50	6.51	4.23	5.78
With other forms of syphilis	2	2	4	10.00	13.50	11.70
With other infectious diseases	—	2	2	—	2.00	2.00
Alcoholic psychoses	87	32	119	7.94	9.05	8.24
Due to drugs, etc.	1	1	2	1.50	.44	.97
Traumatic psychoses	3	—	3	13.48	—	13.48
With cerebral arteriosclerosis	120	113	233	2.29	1.48	2.49
With other disturbances of circulation	—	1	1	—	1.50	1.50
With convulsive disorders (epilepsy)	7	9	16	5.91	9.16	7.74
Senile psychoses	10	40	50	5.19	5.02	5.05
Involuntary psychoses	6	13	19	4.81	8.33	7.22
Due to other metabolic diseases, etc.	3	4	7	2.14	1.72	1.90
With organic changes of nervous system	15	10	25	3.46	1.25	2.58
Psychoneuroses	4	2	6	4.50	2.50	3.83
Manic-depressive psychoses	86	180	266	5.28	6.57	6.16
Dementia praecox	171	203	374	14.56	16.58	15.65
Paranoia and paranoid conditions	34	127	161	6.02	7.27	7.01
With psychopathic personality	2	6	8	.44	8.65	6.60
With mental deficiency	35	38	73	14.72	10.73	14.01
Without psychoses	2	1	3	.44	.44	.44
Total	622	800	1,422	8.24	8.82	8.57

TABLE 19A. *Average Length of Hospital Residence during the Present Admission of All Readmissions in Residence on September 30, 1937*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	13	8	21	5.26	4.37	4.92
With other forms of syphilis	2	1	3	4.00	12.50	6.83
With epidemic encephalitis	2	—	2	.50	—	.50
Alcoholic psychoses	43	9	52	10.15	8.72	9.90
Due to drugs, etc.	1	—	1	7.50	—	7.50
Traumatic psychoses	5	—	5	16.10	—	16.10
With cerebral arteriosclerosis	11	17	28	2.59	3.60	3.21
With convulsive disorders (epilepsy)	14	12	26	7.78	7.33	7.57
Senile psychoses	2	4	6	2.00	9.25	6.83
Involuntary psychoses	2	12	14	2.00	10.75	9.50
Due to other metabolic diseases, etc.	1	4	5	7.50	8.75	8.50
With organic changes of nervous system	7	1	8	4.50	.50	4.00
Psychoneuroses	4	—	4	1.75	—	1.75
Manic-depressive psychoses	85	155	240	6.28	6.95	6.71
Dementia praecox	158	209	367	14.39	14.30	14.35
Paranoia and paranoid conditions	11	48	59	7.40	8.75	8.50
With psychopathic personality	6	11	17	5.66	10.13	8.55
With mental deficiency	40	47	87	8.27	7.94	8.09
Without psychoses	1	—	1	.50	—	.50
Total	408	538	946	9.92	10.13	10.04

TABLE 20. *Family Care Statistics for Year Ended September 30, 1937*

	Males	Females	Total
Remaining in Family Care September 30, 1936	—	15	15
Admitted to Family Care during the Year	—	11	11
Whole Number of Cases within the Year	—	26	26
Discharged from Family Care within the Year	—	20	20
Discharged Outright from Family Care	—	4	4
Returned to Institution	—	16	16
Remaining in Family Care September 30, 1937	—	6	6
Average Daily Number in Family Care During Year	—	11.71	11.71
Supported by State	—	11.71	11.71